STIC Search Report
Biotech-Chem Library

STIC Database Tracking Number: 14733

TO: Deborah Lambkin **Location: REM-5B09/5C18** **Art Unit: 1626** **Wednesday, March 16, 2005** **Case Serial Number: 10/718858**	**From: Mary Hale** **Location: Biotech/Chem Library** **Rem 1D86** **Phone: 2-2507** **Mary.Hale@uspto.gov**

Search Notes

Feel free to contact me if you have any questions.

147332

Access DB# _____

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Deborah Lambkin Examiner #: 71300 Date: 3/8/05
Art Unit: 1626 Phone Number 30[illegible]2-0548 Serial Number: 10/718,658
Mail Box and Bldg/Room Location: _____ Results Format Preferred (circle): ~~PAPER~~ DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

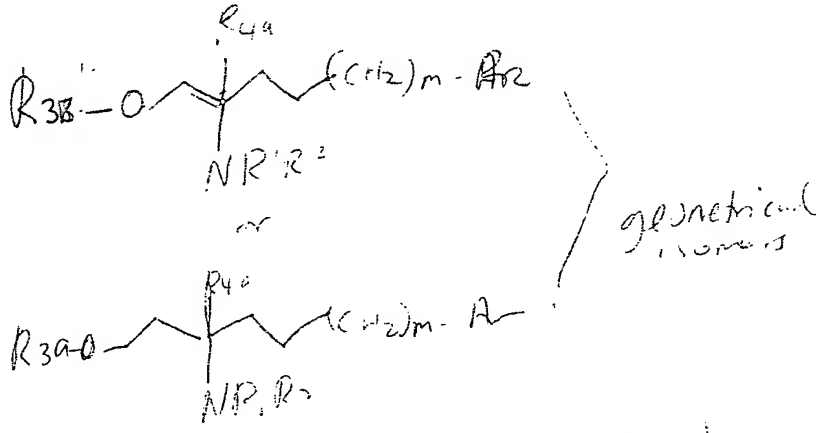
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Amino Alcohol Derivatives

Inventors (please provide full names): Nishi et al

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*



see attached examples

Thanks Jan

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STAFF USE ONLY	Type of Search		Vendors and cost where applicable	
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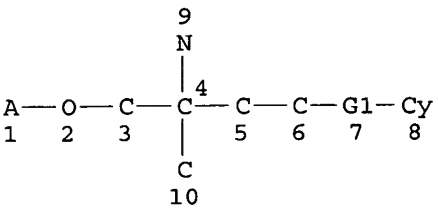
Searcher Phone #:	AA Sequence (#)		Dialog	
Searcher Location:	Structure (#)	2	Questel/Orbit	
Date Searcher Picked Up:	Bibliographic		Dr.Link	
Date Completed: 3/16	Litigation		Lexis/Nexis	
Searcher Prep & Review Time:	Fulltext		Sequence Systems	
Clerical Prep Time:	Patent Family		WWW/Internet	
Online Time: 11	Other		Other (specify)	

PTO-1590 (8-01)

Lanpkat
10/718858

=> d l3 que stat;fil hcaplus;s l3 and (immune(w)(suppress? or response) or t cells or immune or nishi ?/au)
L1 STR



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NODE ATTRIBUTES:
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 10

STEREO ATTRIBUTES: NONE
L3 1209 SEA FILE=REGISTRY SSS FUL L1

100.0% PROCESSED 44980 ITERATIONS 1209 ANSWERS
SEARCH TIME: 00.00.02

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	365.44	566.36

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-4.38

FILE 'HCAPLUS' ENTERED AT 13:41:38 ON 16 MAR 2005
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 16 Mar 2005 VOL 142 ISS 12
FILE LAST UPDATED: 15 Mar 2005 (20050315/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

Searched by: Mary Hale 571-272-2507 REM 1D86

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       175250 IMMUNE
                (IMMUNE OR IMMUNES)
       353207 SUPPRESS?
      1462903 RESPONSE
       309062 RESPONSES
      1610906 RESPONSE
                (RESPONSE OR RESPONSES)
        65202 IMMUNE(W)(SUPPRESS? OR RESPONSE)
       756390 T
      1668863 CELLS
            1 CELLSES
      1668863 CELLS
                (CELLS OR CELLSES)
        77374 T CELLS
                (T(W)CELLS)
       175248 IMMUNE
            5 IMMUNES
       175250 IMMUNE
                (IMMUNE OR IMMUNES)
         9810 NISHI ?/AU
L8         19 L3 AND (IMMUNE(W)(SUPPRESS? OR RESPONSE) OR T CELLS OR IMMUNE
              OR NISHI ?/AU)

=> d 1-19 cbib abs hitstr
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Searched by: Mary Hale 571-272-2507 REM 1D86

L8 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:159962 Document No. 142:217536 Manufacture of amino alcohol derivatives
immunosuppresants with Circinella and Absidia. **Nishi, Takahide**; Onuki, Takashi; Moriguchi, Takashi (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2005046141 A2 20050224, 104 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2004-203737 20040709. PRIORITY: JP 2003-195422 20030711.

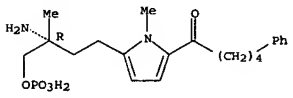
AB The phosphate esters of amino alc. derivs. (I) are easily manufactured with Circinella such as C. muscae and Absidia such as A. cylindrospora from amino alc. derivs. Manufacture of phosphate mono (2R)-2-amino-2-methyl-4-[1-methyl-5-(5-phenylpentanoyl)pyrol-2-yl]-1-Bu ester from I, i.e.

(2R)-2-amino-2-methyl-4-[1-methyl-5-(5-phenylpentanoyl)pyrol-2-yl]butan-1-ol hydrochloride with C. muscae was shown. Also given was chemical synthesis of several amino alc. derivs.

IT **566936-41-2P 688366-02-1P 840523-31-1P**
840523-33-3P 840523-35-5P 840523-37-7P
840523-39-9P
RL: BPN (Biosynthetic preparation); BIOL (Biological study); PREP (Preparation)
(manufacture of phosphate esters of amino alc. derivs. as immunosuppresants with Circinella and Absidia)

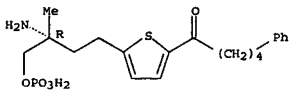
RN 566936-41-2 HCAPLUS
CN 1-Pentanone, 1-[5-[(3R)-3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 688366-02-1 HCAPLUS
CN 1-Pentanone, 1-[5-[(3R)-3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-phenyl- (9CI) (CA INDEX NAME)

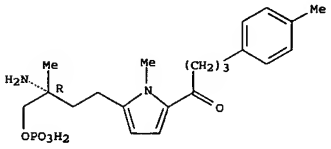
Absolute stereochemistry.



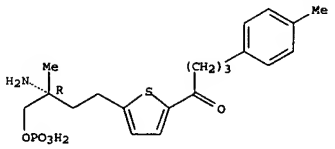
RN 840523-31-1 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

L8 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

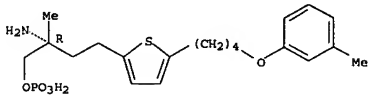


L8 ANSWER 1 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



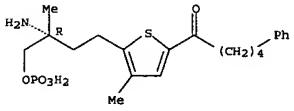
RN 840523-33-3 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



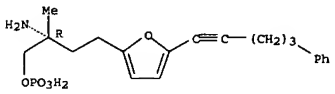
RN 840523-35-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 840523-37-7 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

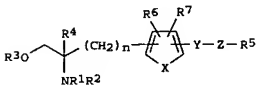


RN 840523-39-9 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:135657 Document No. 142:226780 Pharmaceutical compositions containing amino alcohol derivatives or phosphonic acid derivatives for use as immunosuppressants. **Nishi, Takahide**; Shimozato, Ryuichi; Nara, Futoshi; Miyazaki, Shojiro (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2005041867 A2 20050217, 253 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2004-197492 20040705. PRIORITY: JP 2003-193599 20030708.

GI



I

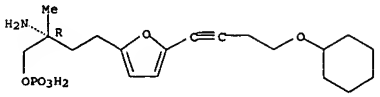
AB The invention relates to pharmaceutical compns. for use as immunosuppressants for treatment and/or prevention of rheumatoid arthritis, Chron's disease, ulcerative colitis, multiple sclerosis, psoriasis vulgaris, atopic dermatitis, insulin-dependent diabetes, glomerulonephritis, and graft rejection, etc., characterized by containing alc. derivs. or phosphonic acid derivs. I [R1, R2 = H, lower alkyl, an amino-protecting group; R3 = H, lower alkyl, a hydroxy-protecting group; R4 = lower alkyl; n = 1-6; X = O, (un)substituted N; Y = ethylene, vinylene, ethynylene, COCH2, CH(OH)CH2, (un)substituted C6-10 arylene; Z = a single bond, C1-10 (un)substituted alkylene optionally containing O or S in or at terminus of the carbon chain; R5 = H, each (un)substituted C3-10 cycloalkyl, C6-10 aryl, 5-7-membered heterocyclyl containing 1-3 of S, O, and/or N; R6, R7 = H, halo, lower alkyl, lower haloalkyl, lower alkoxy, lower alkylthio, CO2H, lower alkoxycarbonyl, HO, lower aliphatic acyl, NH2, mono- or di(lower alkyl) amino, lower aliphatic acylamino, cyano, NO2; provided that when R5 is hydrogen, then Z is branched or substituted C1-10 alkylene or C1-10 alkylene containing O or S in or at terminus of the carbon chain], pharmacol. acceptable salts thereof or pharmacol. acceptable esters thereof. For example, a compound (2R)-2-amino-2-methyl-4-[5-(5-cyclohexylpent-1-ynyl)furan-2-yl]butan-1-ol was prepared, and its effect on adjuvant arthritis rats was examined

IT **566936-17-2P 566936-18-3P 566936-19-4P**
566936-41-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(pharmaceutical compns. containing amino alc. derivs. or phosphonic acid derivs. for use as immunosuppressants)

RN 566936-17-2 HCAPLUS
CN 2-Furanbutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

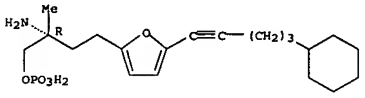
L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

Absolute stereochemistry.



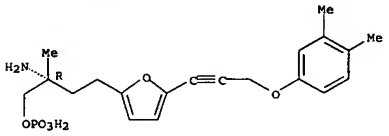
RN 566936-18-3 HCAPLUS
CN 2-Furanbutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



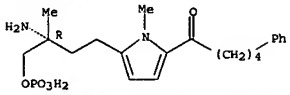
RN 566936-19-4 HCAPLUS
CN 2-Furanbutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



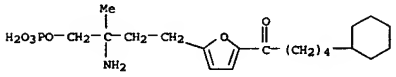
RN 566936-41-2 HCAPLUS
CN 1-Pentanone, 1-[5-[(3R)-3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

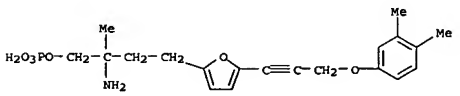


IT **566936-68-3 566936-69-4 566936-70-7**

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-furanyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



RN 566936-73-0 HCAPLUS
CN 2-Furanbutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566936-74-1 HCAPLUS
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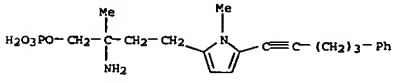

RN 566936-75-2 HCAPLUS
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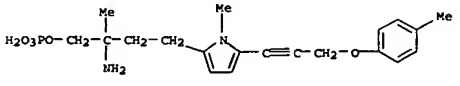
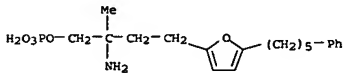


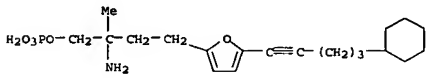
RN 566936-77-4 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β,1-dimethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
566936-71-8 566936-72-9 566936-73-0
566936-74-1 566936-75-2 566936-77-4
566936-78-5 566936-79-6 566936-80-9
566936-81-0 566936-82-1 566936-83-2
566936-84-3 566936-85-4 568578-31-4
839720-79-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical compns. contg. amino alc. derivs. or phosphonic acid derivs. for use as immunosuppressants)

RN 566936-68-3 HCAPLUS
CN 2-Furanbutanol, β-amino-β-methyl-5-(5-phenylpentyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566936-69-4 HCAPLUS
CN 2-Furanbutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566936-70-7 HCAPLUS
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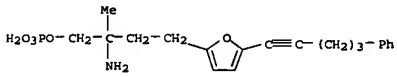

RN 566936-71-8 HCAPLUS
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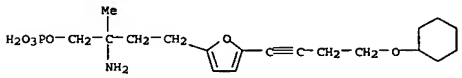
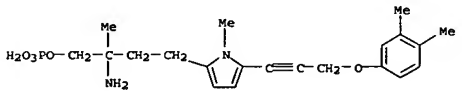


RN 566936-72-9 HCAPLUS

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 566936-78-5 HCAPLUS
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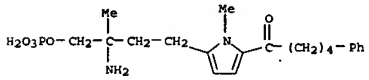
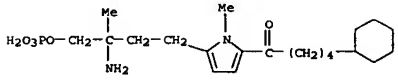


RN 566936-79-6 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



RN 566936-80-9 HCAPLUS
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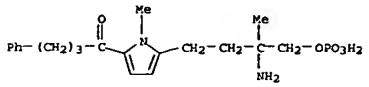

RN 566936-81-0 HCAPLUS
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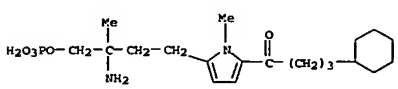
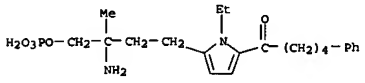
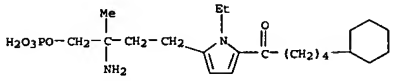


RN 566936-82-1 HCAPLUS

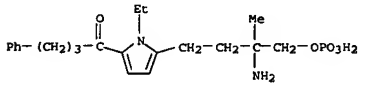
L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)



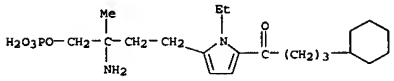
RN 566936-83-2 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



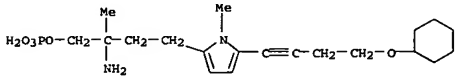
RN 566936-84-3 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-4-phenyl- (9CI) (CA INDEX NAME)



RN 566936-85-4 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-4-cyclohexyl- (9CI) (CA INDEX NAME)

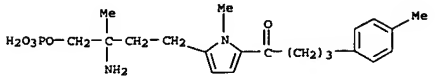


RN 568578-31-4 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β,1-dimethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



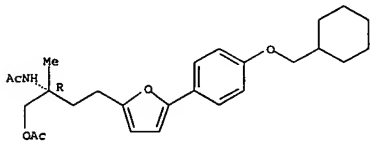
L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 839720-79-5 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED



IT 566938-66-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of pharmaceutical compns. containing amino alc. derivs. or
phosphonic acid derivs. for use as immunosuppressants)
RN 566938-66-7 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[4-(cyclohexylmethoxy)phenyl]-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

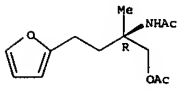
Absolute stereochemistry.



IT 566937-93-7P 566938-00-9P 566938-03-2P
566938-15-6P 566938-19-0P 566938-33-8P
566938-37-2P 566938-48-5P 566938-63-4P
566938-65-6P 566938-68-9P 566938-69-0P
566938-70-3P 566938-71-4P 566938-72-5P
566938-79-2P 566938-80-5P 566938-88-3P
566938-92-9P 839720-99-9P 839721-01-6P
839721-03-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pharmaceutical compns. containing amino alc. derivs. or
phosphonic acid derivs. for use as immunosuppressants)
RN 566937-93-7 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

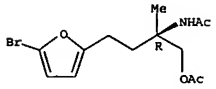
Absolute stereochemistry.

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



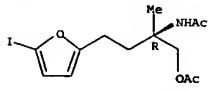
RN 566938-00-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-bromo-2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



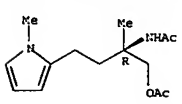
RN 566938-03-2 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-iodo-2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 566938-15-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(1-methyl-1H-pyrrol-2-yl)propyl]- (9CI) (CA INDEX NAME)

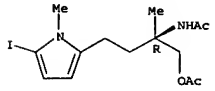
Absolute stereochemistry.



RN 566938-19-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-iodo-1-methyl-1H-pyrrol-2-yl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

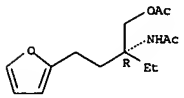
Absolute stereochemistry.

L8 ANSWER 2 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



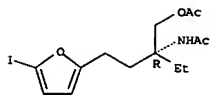
RN 566938-33-8 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-ethyl-3-(2-furanyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



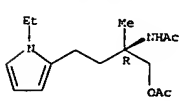
RN 566938-37-2 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-ethyl-3-(5-iodo-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



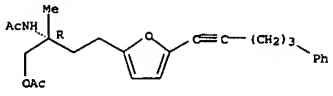
RN 566938-48-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(1-ethyl-1H-pyrrol-2-yl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



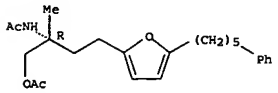
RN 566938-63-4 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenyl-1-pentynyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



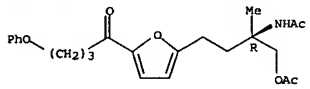
RN 566938 65 6 HCAPLUS
CN Acetamide,
N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenylpentyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



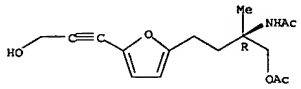
RN 566938-68-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(1-oxo-4-phenoxybutyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 566938-69-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-hydroxy-1-propynyl)-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

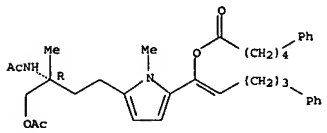
Absolute stereochemistry.



RN 566938-70-3 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-bromo-1-propynyl)-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

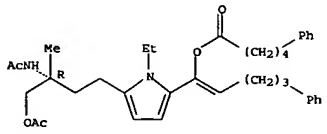
Absolute stereochemistry.

Absolute stereochemistry.
Double bond geometry unknown.



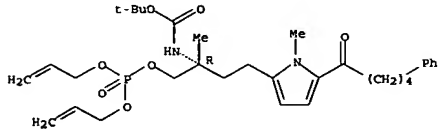
RN 566938-88-3 HCAPLUS
CN Benzenepentanoic acid, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-ethyl-1H-pyrrol-2-yl]-5-phenyl-1-pentenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



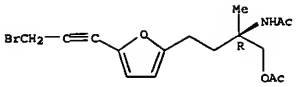
RN 566938-92-9 HCAPLUS
CN 5,7-Dioxa-2-aza-6-phosphadec-9-enoic acid, 3-methyl-3-[2-[1-methyl-5-(1-oxo-5-phenylpentyl)-1H-pyrrol-2-yl]ethyl]-6-(2-propenyloxy)-, 1,1-dimethylethyl ester, 6-oxide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



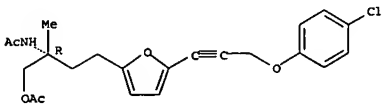
RN 839720-99-9 HCAPLUS
CN Acetamide,
N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(5-cyclohexyl-1-pentynyl)-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



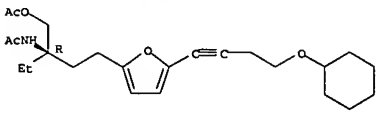
RN 566938-71-4 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[3-(4-chlorophenoxy)-1-propynyl]-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



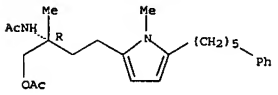
RN 566938-72-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[4-(cyclohexyloxy)-1-butynyl]-2-furanyl]-1-ethylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

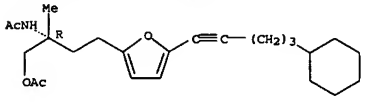


RN 566938-79-2 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[1-methyl-5-(5-phenylpentyl)-1H-pyrrol-2-yl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

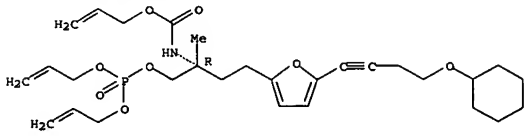


RN 566938-80-5 HCAPLUS
CN Benzenepentanoic acid, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl-1-pentenyl ester (9CI) (CA
INDEX NAME)



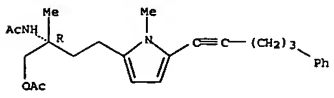
RN 839721-01-6 HCAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.



RN 839721-03-8 HCAPLUS
CN Acetamide,
N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[1-methyl-5-(5-phenyl-1-pentynyl)-1H-pyrrol-2-yl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

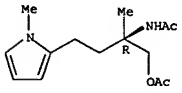


L8 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:55199 Document No. 142:134454 Preparation of pyrroles and related compounds having immunity inhibitory activity. Nishi, Takahide; Takemoto, Toshiyasu; Miyazaki, Shojiro; Shimozato, Takaichi; Nara, Futoshi
(Sankyo Company, Limited, Japan). PCT Int. Appl. WO 2005005383 A1 20050120, 208 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2004-JP10235 20040709. PRIORITY: JP 2003-273224 20030711.
GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

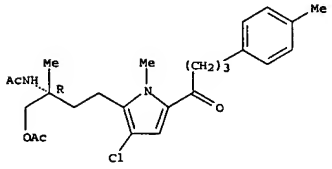
AB Title compds. I [R1, R2 = H, alkyl; R3 = alkyl; n = 2,3; X = S, etc.; Y = a group having -C(:O)CH2-; Z = ethylene, etc.; R4 = (un)substituted aryl; R5 = H, halo, alkyl] were prepared For example, acylation of compound II with
N-methoxy-N-methyl-4-(3,4-dimethylphenyl)butanamide followed by hydrolysis
using HCl afforded compound III in 0.07% overall yield. Compound III exhibited immunity inhibitory activity with 10% of the number of lymph, compared to normal value. Compds. I are claimed useful for the treatment of autoimmune diseases.
IT **566938-15-6P 566938-80-5P 827344-06-9P**
827344-07-0P 827344-08-1P 827344-92-3P
827344-93-4P 827344-99-0P 827345-00-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of pyrroles and related compds. having immunity inhibitory
activity for treatment of autoimmune diseases)
RN 566938-15-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(1-methyl-1H-pyrrol-2-yl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



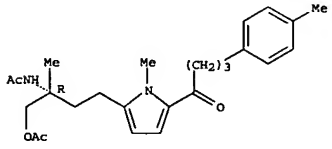
RN 566938-80-5 HCAPLUS
CN Benzenepentanoic acid, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl-1-pentenyl ester (9CI) (CA

L8 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



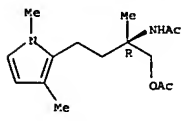
RN 827344-08-1 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[1-methyl-5-[4-(4-methylphenyl)-1-oxobutyl]-1H-pyrrol-2-yl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 827344-92-3 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(1,3-dimethyl-1H-pyrrol-2-yl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

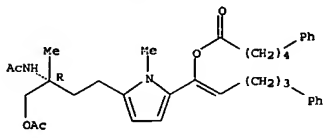


RN 827344-93-4 HCAPLUS
CN Benzenebutanoic acid, 4-methyl-, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1,4-dimethyl-1H-pyrrol-2-yl]-4-(4-methylphenyl)-1-butenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

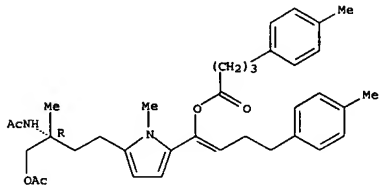
L8 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 827344-06-9 HCAPLUS
CN Benzenebutanoic acid, 4-methyl-, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-methyl-1H-pyrrol-2-yl]-4-(4-methylphenyl)-1-butenyl ester (9CI) (CA INDEX NAME)

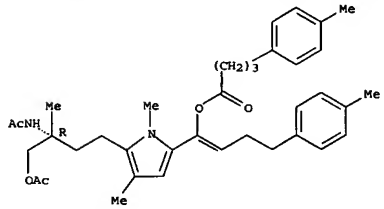
Absolute stereochemistry.
Double bond geometry unknown.



RN 827344-07-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[3-chloro-1-methyl-5-[4-(4-methylphenyl)-1-oxobutyl]-1H-pyrrol-2-yl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

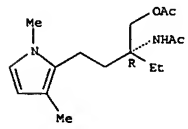
Absolute stereochemistry.

L8 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 827344-99-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(1,3-dimethyl-1H-pyrrol-2-yl)-1-ethylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

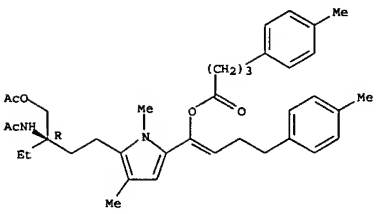


RN 827345-00-6 HCAPLUS
CN Benzenebutanoic acid, 4-methyl-, 1-[5-[(3R)-3-(acetylamino)-3-[(acetyloxy)methyl]pentyl]-1,4-dimethyl-1H-pyrrol-2-yl]-4-(4-methylphenyl)-1-butenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

Searched by: Mary Hale 571-272-2507 REM 1D86

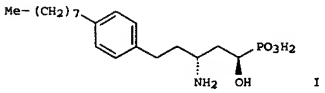
L8 ANSWER 3 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L8 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2004:403930 Document No. 141:99305 Potent S1P receptor agonists replicate the pharmacologic actions of the novel immune modulator FTY720. Hale, Jeffrey J.; Neway, William; Mills, Sander G.; Hajdu, Richard; Keohane, Carol Ann; Rosenbach, Mark; Milligan, James; Shei, Gan-Ju; Chrebet, Gary; Bergstrom, James; Card, Deborah; Koo, Gloria C.; Koprak, Sam L.; Jackson, Jesse J.; Rosen, Hugh; Mandala, Suzanne (Department of Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, 07065, USA). Bioorganic & Medicinal Chemistry Letters, 14(12), 3351-3355 (English) 2004. CODEN: BMCLE8. ISSN: 0960-894X. Publisher: Elsevier Science B.V..

GI

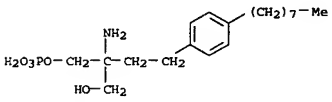


AB Alteration in lymphocyte trafficking and prevention of graft rejection in rodents observed on exposure to FTY720 or its corresponding phosphate ester can be induced by the systemic administration of potent sphingosine-1-phosphate receptor agonists exemplified by I. The similar S1P receptor profiles of the FTY720 phosphate ester and I coupled with their comparable potency in vivo supports a connection between S1P receptor agonism and immunosuppressive efficacy.

IT **402615-91-2**
RL: PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(potent sphingosine-1-phosphate receptor agonists replicate the pharmacol. actions of novel immunosuppressant FTY720 in prevention of graft rejection in relation to alteration in lymphocyte trafficking and pharmacokinetics)

RN 402615-91-2 HCAPLUS

CN 1,3-Propanediol, 2-amino-2-[2-(4-octylphenyl)ethyl]-, mono(dihydrogen phosphate) (ester) (9CI) (CA INDEX NAME)



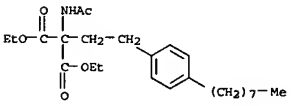
IT **162358-08-9**
RL: RCT (Reactant); RACT (Reactant or reagent)
(potent sphingosine-1-phosphate receptor agonists replicate the pharmacol. actions of novel immunosuppressant FTY720 in prevention of graft rejection in relation to alteration in lymphocyte trafficking and

L8 ANSWER 4 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

pharmacokinetics)

RN 162358-08-9 HCAPLUS

CN Propanedioic acid, (acetylamino)[2-(4-octylphenyl)ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

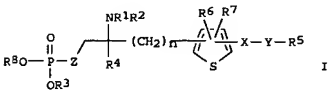


L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2004:391255 Document No. 140:406954 Preparation of thienylalkyl phosphates or (thienylalkyl)phosphonic acids as immunosuppressants with low toxicity.

Nishi, Takehide; Shimozato, Ryuichi; Nara, Futoshi (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2004137208 A2 20040513, 199 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-304196 20021018.

GI



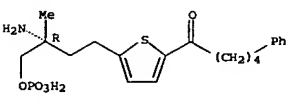
AB The title compds. I [R1, R2 = H, lower aliphatic acyl, lower alkoxycarbonyl; R3, R8 = H, protecting group; R4 = H, lower (hydroxy)alkyl; n = 1-6; X = ethylene, vinylene, ethynylene, C6-10 arylene, etc.; Y = bond, C1-10 (un)substituted alkylene; Z = O, CH2; R5 = H, (un)substituted C3-10 cycloalkyl, (un)substituted C6-10 aryl, (un)substituted heterocyclyl; when R5 = H, then Y ≠ bond; R6, R7 = H, halo, lower (halo)alkyl, lower alkoxy, OH, cyano, NO2, etc.], their pharmacol. acceptable salts, or esters are prepared Thus, treatment of bis(allyl) mono[(2R)-tert-butoxycarbonylamino-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butyl] phosphate with tetrakis(triphenylphosphine)palladium gave 69% mono[(2R)-amino-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butyl] phosphate, which inhibited host vs. graft reaction in rats with ID50 value of 0.0878 mg/kg.

IT **688366-02-1P**, Mono[(2R)-amino-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butyl] phosphate
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of thienylalkyl phosphates or (thienylalkyl)phosphonic acids as immunosuppressants)

RN 688366-02-1 HCAPLUS

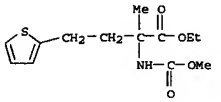
CN 1-Pentanone, 1-[5-[(3R)-3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



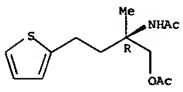
IT **391678-01-6P**, Ethyl 2-methoxycarbonylamino-2-methyl-4-(2-thienyl)butanoate **391678-18-5P**, (2R)-(Acetylamino)-2-methyl-4-

L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
(thiophen-2-yl)butyl acetate **391678-19-6P**, (2R)-Acetylamino-2-methyl-4-(5-bromothiophen-2-yl)butyl acetate **391678-20-9P**, (2R)-Acetylamino-2-methyl-4-[5-(5-phenylpent-1-ynyl)thiophen-2-yl]butyl acetate **391678-21-0P**, (2R)-(Acetylamino)-2-methyl-4-[5-(5-phenylpentyl)thiophen-2-yl]butyl acetate **688366-04-3P**, Diallyl mono[(2R)-[(tert-butoxycarbonyl)amino]-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butyl] phosphate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of thienylalkyl phosphates or (thienylalkyl)phosphonic acids as
immunosuppressants)
RN 391678-01-6 HCAPLUS
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-, ethyl ester (9CI) (CA INDEX NAME)



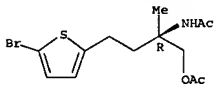
RN 391678-18-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(2-thienyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 391678-19-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-bromo-2-thienyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

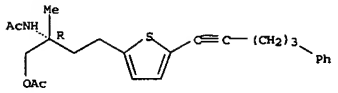
Absolute stereochemistry.



RN 391678-20-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenyl-1-pentynyl)-2-thienyl]propyl]- (9CI) (CA INDEX NAME)

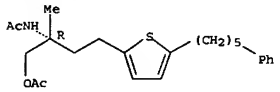
Absolute stereochemistry.

L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



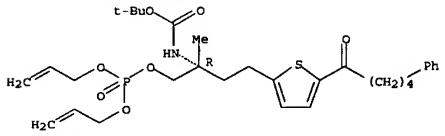
RN 391678-21-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenylpentyl)-2-thienyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 688366-04-3 HCAPLUS
CN 5,7-Dioxa-2-aza-6-phosphadec-9-enoic acid, 3-methyl-3-[2-[5-(1-oxo-5-phenylpentyl)-2-thienyl]ethyl]-6-(2-propenyloxy)-, 1,1-dimethylethyl ester, 6-oxide, (3R)- (9CI) (CA INDEX NAME)

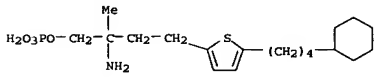
Absolute stereochemistry.



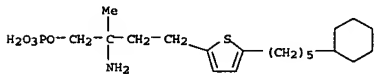
IT **566937-18-6P**, Mono[2-amino-2-methyl-4-[5-(4-cyclohexylbutyl)thiophen-2-yl]butyl] phosphate **566937-19-7P**, Mono[2-amino-2-methyl-4-[5-(5-cyclohexylpentyl)thiophen-2-yl]butyl] phosphate **566937-20-0P**, Mono[2-amino-2-methyl-4-[5-(5-phenylpentyl)thiophen-2-yl]butyl] phosphate **566937-21-1P**, Mono[2-amino-2-methyl-4-[5-(4-cyclohexyloxybutyl)thiophen-2-yl]butyl] phosphate **566937-22-2P**, Mono[2-amino-2-methyl-4-[5-[4-(4-fluorophenoxy)butyl]thiophen-2-yl]butyl] phosphate **566937-23-3P**,
Mono[2-amino-2-methyl-4-[5-[4-(4-methoxyphenoxy)butyl]thiophen-2-yl]butyl] phosphate **566937-24-4P**, Mono[2-amino-2-methyl-4-[5-(4-benzyloxybutyl)thiophen-2-yl]butyl] phosphate **566937-25-5P**, Mono[2-amino-2-methyl-4-[5-(4-cyclohexylbut-1-ynyl)thiophen-2-yl]butyl] phosphate **566937-26-6P**, Mono[2-amino-2-methyl-4-[5-(4-phenylbut-1-ynyl)thiophen-2-yl]butyl] phosphate **566937-27-7P**, Mono[2-amino-2-methyl-4-[5-(5-cyclohexylpent-1-ynyl)thiophen-2-yl]butyl] phosphate **566937-28-8P**, Mono[2-amino-2-methyl-4-[5-(5-phenylpent-

L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
1-ynyl)thiophen-2-yl]butyl] phosphate **566937-29-9P**, Mono[2-amino-2-methyl-4-[5-[5-(4-fluorophenyl)pent-1-ynyl]thiophen-2-yl]butyl] phosphate **566937-30-2P**, Mono[2-amino-2-methyl-4-[5-[5-(4-methoxyphenyl)pent-1-ynyl]thiophen-2-yl]butyl] phosphate **566937-31-3P**, Mono[2-amino-2-methyl-4-[5-[3-(4-methylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-32-4P**, Mono[2-amino-2-methyl-4-[5-[3-(4-ethylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-33-5P**, Mono[2-amino-2-methyl-4-[5-[3-(4-methylthiophenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-34-6P**, Mono[2-amino-2-methyl-4-[5-[4-cyclohexyloxybut-1-ynyl]thiophen-2-yl]butyl] phosphate **566937-35-7P**, Mono[2-amino-2-methyl-4-[5-[4-(4-fluorophenoxy)but-1-ynyl]thiophen-2-yl]butyl] phosphate **566937-36-8P**, Mono[2-amino-2-methyl-4-[5-[4-(4-methylphenoxy)but-1-ynyl]thiophen-2-yl]butyl] phosphate **566937-37-9P**, Mono[2-amino-2-methyl-4-[5-(3-cyclohexylmethoxypropynyl)thiophen-2-yl]butyl] phosphate **566937-38-0P**, Mono[2-amino-2-methyl-4-[5-(4-phenylmethoxybut-1-ynyl)thiophen-2-yl]butyl] phosphate **566937-39-1P**, Mono[2-amino-2-methyl-4-[5-(4-cyclohexylbutanoyl)thiophen-2-yl]butyl] phosphate **566937-40-4P**, Mono[2-amino-2-methyl-4-[5-(4-phenylbutanoyl)thiophen-2-yl]butyl] phosphate **566937-41-5P**, Mono[2-amino-2-methyl-4-[5-(5-cyclohexylpentanoyl)thiophen-2-yl]butyl] phosphate **566937-42-6P**, Mono[2-amino-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butyl] phosphate **566937-43-7P**, Mono[2-amino-2-methyl-4-[5-[5-(4-fluorophenyl)pentanoyl]thiophen-2-yl]butyl] phosphate **566937-44-8P**, Mono[2-amino-2-ethyl-4-[5-(5-cyclohexylpent-1-ynyl)thiophen-2-yl]butyl] phosphate **566937-45-9P**, Mono[2-amino-2-ethyl-4-[5-(5-cyclohexylpentanoyl)thiophen-2-yl]butyl] phosphate **566937-46-0P**, Mono[2-amino-2-methyl-4-[5-[3-(4-chlorophenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-47-1P**, Mono[2-amino-2-methyl-4-[5-[3-(3-methylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-48-2P**, Mono[2-amino-2-methyl-4-[5-[3-(3,4-dimethylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-49-3P**, Mono[2-amino-2-methyl-4-[5-[3-(3-methoxyphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-50-6P**, Mono[2-amino-2-methyl-4-[5-[3-(3,4-dimethoxyphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-51-7P**, Mono[2-amino-2-methyl-4-[5-[3-(3,5-dimethoxyphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-52-8P**, Mono[2-amino-2-methyl-4-[5-[3-(3-acetylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **566937-53-9P**, Mono[2-amino-2-methyl-4-[5-[3-(4-acetylphenoxy)propynyl]thiophen-2-yl]butyl] phosphate **688365-86-8P**, Mono[2-amino-2-methyl-4-[5-[3-(4-methylcyclohexyloxy)propynyl]thiophen-2-yl]butyl] phosphate **688365-87-9P**, Mono[2-amino-2-ethyl-4-[5-(5-cyclohexylpentyl)thiophen-2-yl]butyl] phosphate **688366-05-4P**, Mono[(2R)-amino-2-methyl-4-[5-(4-cyclohexyloxybut-1-ynyl)thiophen-2-yl]butyl] phosphate
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of thienylalkyl phosphates or (thienylalkyl)phosphonic acids as
immunosuppressants)
RN 566937-18-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(4-cyclohexylbutyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

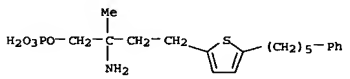
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



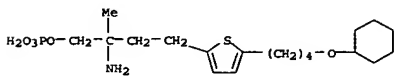
RN 566937-19-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexylpentyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



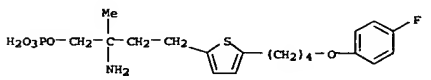
RN 566937-20-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(5-phenylpentyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-21-1 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(cyclohexyloxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

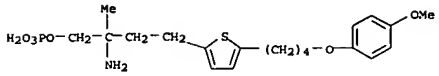


RN 566937-22-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-fluorophenoxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

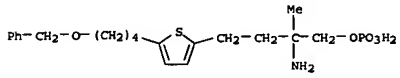


RN 566937-23-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-methoxyphenoxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

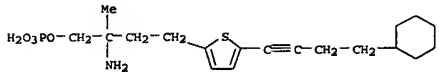
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



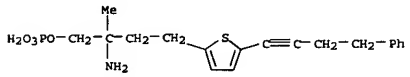
RN 566937-24-4 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(phenylmethoxy)butyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



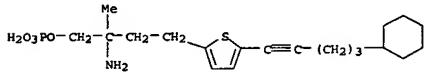
RN 566937-25-5 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(4-cyclohexyl-1-butynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



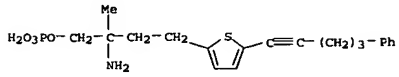
RN 566937-26-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(4-phenyl-1-butynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



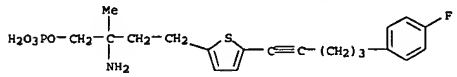
RN 566937-27-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



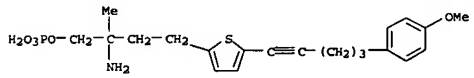
RN 566937-28-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(5-phenyl-1-pentynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



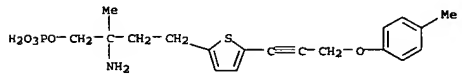
RN 566937-29-9 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[5-(4-fluorophenyl)-1-pentynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



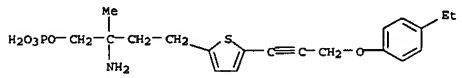
RN 566937-30-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[5-(4-methoxyphenyl)-1-pentynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-31-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-(4-methylphenoxy)-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

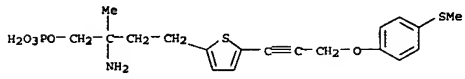


RN 566937-32-4 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(4-ethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

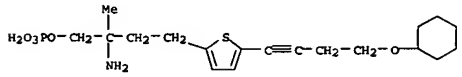


RN 566937-33-5 HCAPLUS

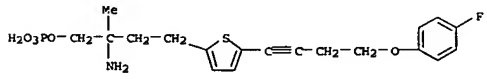
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-[4-(methylthio)phenoxy]-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



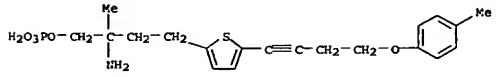
RN 566937-34-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-35-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-fluorophenoxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

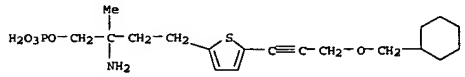


RN 566937-36-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(4-methylphenoxy)-1-butynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

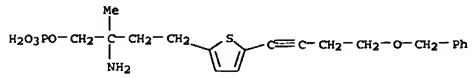


RN 566937-37-9 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(cyclohexylmethoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

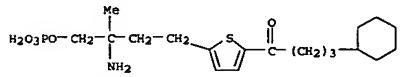
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



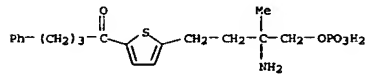
RN 566937-38-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(phenylmethoxy)-1-butynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



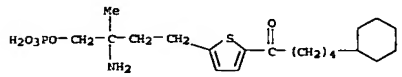
RN 566937-39-1 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-4-cyclohexyl- (9CI) (CA INDEX NAME)



RN 566937-40-4 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-4-phenyl- (9CI) (CA INDEX NAME)



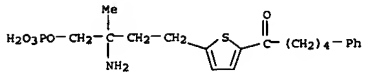
RN 566937-41-5 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



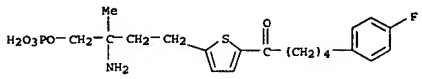
RN 566937-42-6 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-phenyl- (9CI) (CA INDEX NAME)

Searched by: Mary Hale 571-272-2507 REM 1D86

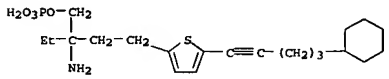
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



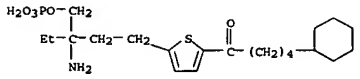
RN 566937-43-7 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-(4-fluorophenyl)- (9CI) (CA INDEX NAME)



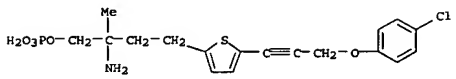
RN 566937-44-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-ethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-45-9 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-ethyl-4-(phosphonooxy)butyl]-2-thienyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)

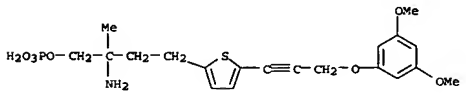


RN 566937-46-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(4-chlorophenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

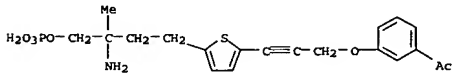


RN 566937-47-1 HCAPLUS

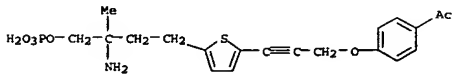
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



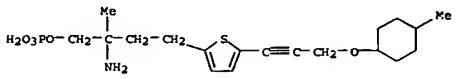
RN 566937-52-8 HCAPLUS
CN Ethanone, 1-[3-[[3-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-2-propynyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



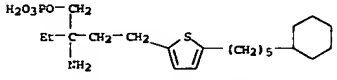
RN 566937-53-9 HCAPLUS
CN Ethanone, 1-[4-[[3-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-2-propynyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



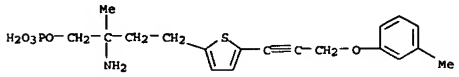
RN 688365-86-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-[(4-methylcyclohexyl)oxy]-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



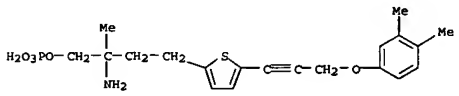
RN 688365-87-9 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexylpentyl)-β-ethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



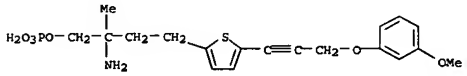
L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



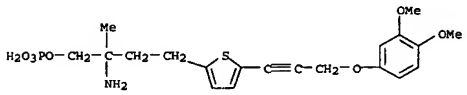
RN 566937-48-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-49-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3-methoxyphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-50-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,4-dimethoxyphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

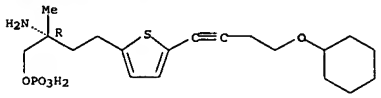


RN 566937-51-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,5-dimethoxyphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

L8 ANSWER 5 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 688366-05-4 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



Searched by: Mary Hale 571-272-2507 REM 1D86

L8 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2004:368306 Document No. 141:99302 **Immune** cell regulation and cardiovascular effects of sphingosine 1-phosphate receptor agonists in rodents are mediated via distinct receptor subtypes. Forrest, M.; Sun, S.-Y.; Hajdu, R.; Bergstrom, J.; Card, D.; Doherty, G.; Hale, J.; Keohane, C.; Meyers, C.; Milligan, J.; Mills, S.; Nomura, N.; Rosen, H.; Rosenbach, M.; Shei, G.-J.; Singer, I. I.; Tian, M.; West, S.; White, V.; Xie, J.; Proia, R. L.; Mandala, S. (Departments of Immunology and Rheumatology, Pharmacology, and Medicinal Chemistry, Merck Research Laboratories, Rahway, NJ, USA). Journal of Pharmacology and Experimental Therapeutics, 309(2), 758-768 (English) 2004. CODEN: JPETAB. ISSN: 0022-3565. Publisher: American Society for Pharmacology and Experimental Therapeutics.

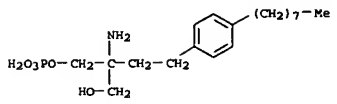
AB Sphingosine 1-phosphate (S1P) is a bioactive lysolipid with pleiotropic functions mediated through a family of G protein-coupled receptors, S1P1,2,3,4,5. Physiol. effects of S1P receptor agonists include regulation of cardiovascular function and immunosuppression via redistribution of lymphocytes from blood to secondary lymphoid organs. The phosphorylated metabolite of the immunosuppressant agent FTY720 (2-amino-2-[2-[4-octylphenyl]ethyl]-1,3-propanediol) and other phosphonate analogs with differential receptor selectivity were investigated. No significant species differences in compound potency or rank order of activity on receptors cloned from human, murine, and rat sources were observed All synthetic analogs were high-affinity agonists on S1P1, with IC50 values for ligand binding between 0.3 and 14 nM. The correlation between S1P1 receptor activation and the ED50 for lymphocyte reduction was highly significant ($p < 0.001$) and lower for the other receptors. In contrast to S1P1-mediated effects on lymphocyte recirculation, three lines of evidence link S1P3 receptor activity with acute toxicity and cardiovascular regulation: compound potency on S1P3 correlated with toxicity and bradycardia; the shift in potency of phosphorylated-FTY720 for inducing lymphopenia vs. bradycardia and hypertension was consistent with affinity for S1P1 relative to S1P3; and toxicity, bradycardia, and hypertension were absent in S1P3-/- mice. Blood pressure effects of agonists in anesthetized rats were complex, whereas hypertension was the predominant effect in conscious rats and mice. Immunolocalization of S1P3 in rodent heart revealed abundant expression on myocytes and perivascular smooth muscle cells consistent with regulation of bradycardia and hypertension, whereas S1P1 expression was restricted to the vascular endothelium.

IT **402615-91-2**
RL: PAC (Pharmacological activity); BIOL (Biological study)
(**immune** cell regulation and cardiovascular effects of sphingosine 1-phosphate receptor agonists in rodents are mediated via distinct receptor subtypes)

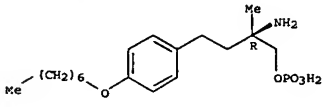
RN 402615-91-2 HCAPLUS

CN 1,3-Propanediol, 2-amino-2-[2-(4-octylphenyl)ethyl]-, mono(dihydrogen phosphate) (ester) (9CI) (CA INDEX NAME)

L8 ANSWER 6 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



Absolute stereochemistry.



L8 ANSWER 7 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2003:778468 Document No. 139:259937 Rapid induction of medullary thymocyte phenotypic maturation and egress inhibition by nanomolar sphingosine 1-phosphate receptor agonist. Rosen, Hugh; Alfonso, Christopher; Surh, Charles D.; McHeyzer-Williams, Michael G. (Department of Immunology, The Scripps Research Institute, La Jolla, CA, 92037, USA). Proceedings of the National Academy of Sciences of the United States of America, 100(19), 10907-10912 (English) 2003. CODEN: PNASA6. ISSN: 0027-8424. Publisher: National Academy of Sciences.

AB Only a small number of **T cells** generated in the thymus each day are selected to replenish the peripheral T cell pool. Much is known about thymic selection; however, little is known of the mechanisms regulating medullary maturation and the release of mature **T cells** into the blood. Here the authors demonstrate a rapid acceleration of medullary thymocyte phenotypic maturation through loss of CD69 induced by sphingosine 1-phosphate (S1P) receptor agonist. Low nanomolar agonist concns. selectively induce changes in CD69int CD62Lhigh single pos. **T cells**, resulting in down-modulation of CD69 within 2 h. While CD69 loss is accelerated, egress of mature **T cells** into blood is inhibited >95% within 2 h. Both processes exhibit parallel sensitivities and dose-responses. Together, these data reveal a potent means for rapidly regulating thymic export where S1P receptor agonism alters both phenotypic maturation and egress of thymocytes into blood during late thymic maturation. The S1P system is now shown to acutely regulate both thymic and lymph node egress. Inhibition of lymphocyte egress from thymus and lymph node can contribute synergistically to clin. useful immunosuppression by disrupting recirculation of peripheral **T cells**.

IT **479201-16-6**
RL: BSU (Biological study, unclassified); PKT (Pharmacokinetics); BIOL (Biological study)
(rapid induction of medullary thymocyte phenotypic maturation and egress inhibition by nanomolar sphingosine 1-phosphate receptor agonist)

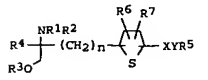
RN 479201-16-6 HCAPLUS

CN Benzenebutanol, β-amino-4-(heptyloxy)-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

L8 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2003:752755 Document No. 139:271046 Pharmaceutical compositions containing immunosuppressant thiophene amino alcohols and preparation of their intermediates. **Nishi, Takehide**; Takemoto, Toshiyasu; Nara, Futoshi; Shimozato, Ryuichi (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003267974 A2 20030925, 150 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2003-1715 20030108. PRIORITY: JP 2002-4425 20020111.

GI



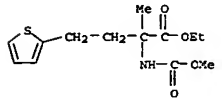
I

AB The compns., useful for prevention and treatment of autoimmune diseases, chronic articular rheumatism, and transplant rejection, contain amino alcs. I (R1-R3 = H, protective group; R4 = lower alkyl; n = 1-6; X = ethylene, vinylene, ethynylene, etc.; Y = single bond, C1-10 alkylene, etc.; R5 = H, cycloalkyl, aryl, heterocyclyl, etc.; R6, R7 = H, halo, lower alkyl, etc.), their salts, esters, or their derivs. (4R)-[2-[5-(5-cyclohexylpent-1-ynyl)thiophen-2-yl]ethyl-4-methyloxazolidin-2-one (preparation given) was treated with KOH in THF/MeOH/H2O under reflux for 18 h to give 83% (2R)-amino-2-methyl-4-(5-(5-cyclohexylpent-1-ynyl)thiophen-2-yl]butan-1-ol, which showed host vs. graft reaction inhibition in rats with ID50 of 0.0843 mg/kg.

IT **391678-01-6P**, Ethyl 2-methoxycarbonylamino-2-methyl-4-(2-thienyl)butanoate **391678-13-0P 391678-18-5P**
391678-19-6P 391678-20-9P 391678-22-1P
391678-27-6P 391678-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of immunosuppressant thiophene amino alcs.)

RN 391678-01-6 HCAPLUS

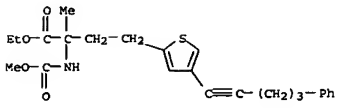
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 391678-13-0 HCAPLUS

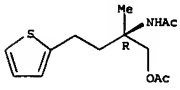
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-4-(5-phenyl-1-pentynyl)-, ethyl ester (9CI) (CA INDEX NAME)

L8 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



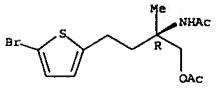
RN 391678-18-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(2-thienyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



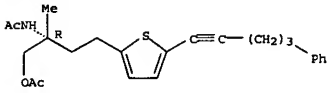
RN 391678-19-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-bromo-2-thienyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 391678-20-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenyl-1-pentynyl)-2-thienyl]propyl]- (9CI) (CA INDEX NAME)

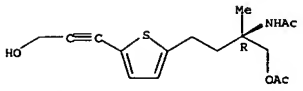
Absolute stereochemistry.



RN 391678-22-1 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-hydroxy-1-propynyl)-2-thienyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

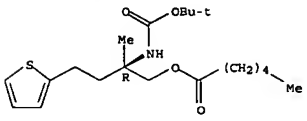
Absolute stereochemistry.

L8 ANSWER 8 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



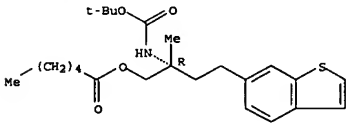
RN 391678-27-6 HCAPLUS
CN Hexanoic acid, (2R)-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-methyl-4-(2-thienyl)butyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

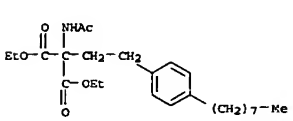


RN 391678-30-1 HCAPLUS
CN Hexanoic acid, (2R)-4-benzo[b]thien-6-yl-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-methylbutyl ester (9CI) (CA INDEX NAME)

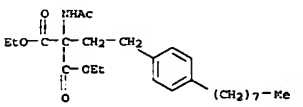
Absolute stereochemistry.



L8 ANSWER 9 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:719274 Document No. 139:246116 Preparation of aminoalkylphosphonates and related compounds as EDG receptor agonists. Doherty, George A.; Hale, Jeffrey J. (Merck & Co., Inc., USA). PCT Int. Appl. WO 2003074008 A2 20030912, 75 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US7262 20030225. PRIORITY: US 2002-PV360605 20020301.
AB The present invention encompasses title compds., A-X[CR1R2]mCHNH2[CR3R4]pC(R9)3 (m = 1-4; p = 9-20; X = bond, O, NH, S(O)k, k = 0-2; A = CO2H, PO3H2, PO2H2, SO3H, five membered nitrogen containing heterocyclyl, etc.; two R1 or R3 groups on adjacent carbon may be joined together to form a double bond; R2, R3, R4 = H, halo, OH, CO2H, C1-4 alkyl, alkoxy, alkylthio, aryl, etc.; R1-R4 = residing on the same carbon optionally joined together to form a carbonyl group, etc.; R9 = H, halo, OH, C1-4 alkoxy, alkylthio, C3-7 cycloalkyl, etc.); as well as the pharmaceutically acceptable salts and hydrates thereof. The compds. are useful for treating immune mediated diseases and conditions, such as bone marrow, organ and tissue transplant rejection. Pharmaceutical compns. and methods of use are included. Thus, preparation of (+/-)-2-amino-4-(4-(octylphenyl))butanol, O-phosphate was described in five steps starting from di-Et 2-acetamido-2-(2-(4-octylphenyl]ethyl)propanedioate.
IT 162358-08-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of aminoalkylphosphonates and related compds. as EDG receptor agonists)
RN 162358-08-9 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(4-octylphenyl)ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



L8 ANSWER 10 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:719253 Document No. 139:245479 Preparation of aminoalkylphosphonates and related compounds as EDG receptor agonists. Budhu, Richard J.; Doherty, George A.; Hale, Jeffrey J.; Lynch, Christopher L.; Mills, Sander G.; Neway, William E., III (Merck & Co., Inc., USA). PCT Int. Appl. WO 2003073986 A2 20030912, 90 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-US5947 20030227. PRIORITY: US 2002-PV360663 20020301.
AB AX(CR1R2)mCH(NH2)(CR3R4)nArBC [A = CO2H, P(O)(OH)2, PH(O)(OH),SO3H, P(O)R5OH, 5-membered N heterocycle; X = bond, O, NH, S, S, S(O), SO2; R1-R4 = H, halogen, OH, CO2H, (un)substituted alkyl, alkoxy, alkylthio, aryl; R1R2, R3R4 = O; m = 1-4; n = 0-4; R5 = (un)substituted alkyl, aryl; Ar = Ph, naphthyl; C = (un)substituted alkyl, alkoxy, acyl, hydroxyalkyl, Ph, heterocyclic, bond; when C = bond, B = (un)substituted Ph, alkyl, alkenyl, alkynyl, OH, SH, acyl, CONH2, NH2; when C = Ph, heterocyclic, B = (un)substituted alkyl, alkoxy, acyl, CO, CH(OH), C6H4, heterocyclic; when C = alkyl, alkoxy, acyl, B = (un)substituted C6H4, heterocyclic] were prepared for use as EDG receptor antagonists useful for treating immune mediated diseases and conditions, such as bone marrow, organ and tissue transplant rejection (no data). Thus, 4-Me(CH2)7C6H4CH2CH2C(NHAc)(CO2Et)2 was hydrolyzed and decarboxylated to 4-Me(CH2)7C6H4CH2CH2CH(NH2)CO2H which was N-benzyloxycarbonylated, reduced to 4-Me(CH2)7C6H4CH2CH2CH(NHCbz)CH2OH, phosphorylated (MeCH)2NP(OCH2Ph)2, and deblocked to give 4-Me(CH2)7C6H4CH2CH2CH(NH2)CH2OP(O)(OH)2.
IT 162358-08-9, Diethyl 2-(acetamido)-2-(2-(4-octylphenyl)ethyl)propanedioate
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of aminoalkylphosphonates and related compds. as EDG receptor agonists)
RN 162358-08-9 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(4-octylphenyl)ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



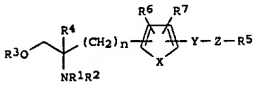
Searched by: Mary Hale 571-272-2507 REM 1D86

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

2003:570956 Document No. 139:133462 Preparation of 2-amino-4-(2-furanyl or 2-pyrrolyl)butanol or 3-amino-5-(2-furanyl or 2-pyrrolyl)pentylphosphonic acid derivatives as immunosuppressants. **Nishi, Takahide**; Shimozato, Takaichi; Nara, Futoshi; Miyazaki, Shojiro (Sankyo Company, Limited, Japan). PCT Int. Appl. WO 2003059880 A1 20030724, 592 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2003-JP136 20030109.

PRIORITY: JP 2002-4456 20020111; JP 2002-4484 20020111.

GI



I

AB Amino alc. derivs. or phosphonic acid derivs., pharmacol. acceptable salts thereof or pharmacol. acceptable esters thereof (I) [R1, R2 = H, lower alkyl, an amino-protecting group; R3 = H, lower alkyl, a hydroxy-protecting group; R4 = lower alkyl; n = an integer of 1 to 6; X = O, (un)substituted; Y = ethylene, vinylene, ethynylene, COCH2, CH(OH)CH2, (un)substituted C6-10 arylene; Z = a single bond, C1-10 (un)substituted alkylene optionally containing O or S in or at terminus of the carbon chain; R5 = H, each (un)substituted C3-10 cycloalkyl, C6-10 aryl, 5- o 7-membered heterocyclyl containing 1-3 of S, O, and/or N; R6, R7 = H, halo, lower alkyl, lower haloalkyl, lower alkoxy, lower alkylthio, CO2H, lower alkoxycarbonyl, HO, lower aliphatic acyl, NH2, mono- or di(lower alkyl) amino, lower aliphatic acylamino, cyano, NO2; provided that when R5 is hydrogen, then Z is branched or substituted C1-10 alkylene or C1-10 alkylene containing O or S in or at terminus of the carbon chain] are prepared

These compds. possess an excellent immunosuppressive activity and are useful for the prevention or treatment of autoimmune diseases, chronic articular rheumatism, or organ transplant rejection. They are also used in combination with another immunosuppressant selected from (1) drugs inhibiting cellular signal related to cytokine expression of T cell, (2) drugs inhibiting nucleoside synthesis in **immune** cells, (3) drugs inhibiting the effect of cytokines against **immune** cells and possessing antirheumatic effect, (4) alkylating agents causing cell death by destruction of DNA chain or synthesis disorder of DNA, (5) antimetabolites inhibiting the nucleic acid metabolism by inhibiting the folic acid production, (6) protein prepns. possessing TNFα inhibitory

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

activity, (7) steroid hormones forming complexes by binding to cellular steroid receptors and exhibiting an immunosuppressive activity through proteins synthesized by binding to the reactive site of chromosome, (8) substances inhibiting the prodn. of prostaglandins, and /or (9) nonsteroidal antiinflammatory agents antagonizing prostaglandins. Thus, 4.23 g (2R)-1-acetoxy-2-acetylamino-2-methyl-4-(1-methylpyrrol-2-yl)butane was dissolved in 100 mL toluene, treated with a soln. of 9.41 g 4-4-dimethylaminopyridine and 7.92 g 5-phenylvaleryl chloride in 50 mL toluene, and stirred at 110° for 48 h to give 4.03 g (2R)-1-acetoxy-2-acetylamino-2-methyl-4-[1-methyl-5-[5-phenyl-1-(5-phenylpentanoyloxy)pent-1-enyl]pyrrol-2-yl]butane (45% yield) which (4.027 g) was dissolved in a mixt. of 14 mL THF and 14 mL MeOH, treated with 14 mL H2O and 2.88 g LiOH.H2O, and stirred at 50° for 4 h to give, after workup, (2R)-2-amino-2-methyl-4-(1-methyl-5-(5-phenylpentanoyl)pyrrol-2-yl]butan-1-ol (II). II.HCl inhibited host vs. graft reaction of WKAH/Hkm or Lewis rat spleen cells transplanted s.c. in Lewis rat rear soles with ID50 of 0.013 mg/kg. A tablet formulation 2-amino-2-methyl-4-[5-(5-phenylpentanoyl)thiophen-2-yl]butan-1-ol maleate was described.

IT **566938-00-9P 566938-03-2P**

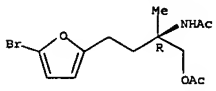
RL: ANT (Analyte); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation)

(preparation of amino(furanyl or pyrrolyl)butanol or -pentylphosphonic acid derivs. as immunosuppressants for prevention/treatment of autoimmune diseases, chronic articular rheumatism, or organ transplant rejections)

RN 566938-00-9 HCAPLUS

CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-bromo-2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

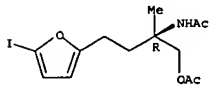
Absolute stereochemistry.



RN 566938-03-2 HCAPLUS

CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-iodo-2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT **566936-17-2P 566936-18-3P 566936-19-4P 566936-41-2P 566936-68-3P 566936-69-4P**

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

566936-70-7P 566936-71-8P 566936-72-9P 566936-73-0P 566936-74-1P 566936-75-2P 566936-77-4P 566936-78-5P 566936-79-6P 566936-80-9P 566936-81-0P 566936-82-1P 566936-83-2P 566936-84-3P 566936-85-4P 566937-18-6P 566937-19-7P 566937-20-0P 566937-21-1P 566937-22-2P 566937-23-3P 566937-24-4P 566937-25-5P 566937-26-6P 566937-27-7P 566937-28-8P 566937-29-9P 566937-30-2P 566937-31-3P 566937-32-4P 566937-33-5P 566937-34-6P 566937-35-7P 566937-36-8P 566937-37-9P 566937-38-0P 566937-39-1P 566937-40-4P 566937-41-5P 566937-42-6P 566937-43-7P 566937-44-8P 566937-45-9P 566937-46-0P 566937-47-1P 566937-48-2P 566937-49-3P 566937-50-6P 566937-51-7P 566937-52-8P 566937-53-9P 566938-97-4P 568578-31-4P

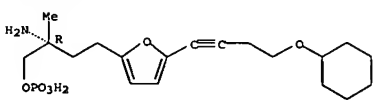
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of amino(furanyl or pyrrolyl)butanol or -pentylphosphonic acid derivs. as immunosuppressants for prevention/treatment of autoimmune diseases, chronic articular rheumatism, or organ transplant rejections)

RN 566936-17-2 HCAPLUS

CN 2-Furanbutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

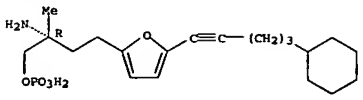
Absolute stereochemistry.



RN 566936-18-3 HCAPLUS

CN 2-Furanbutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

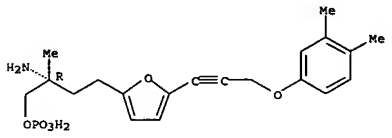


RN 566936-19-4 HCAPLUS

CN 2-Furanbutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

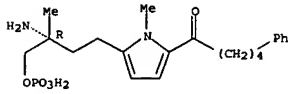
Absolute stereochemistry.



RN 566936-41-2 HCAPLUS

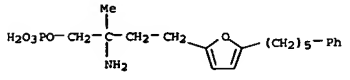
CN 1-Pentanone, 1-[5-[(3R)-3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



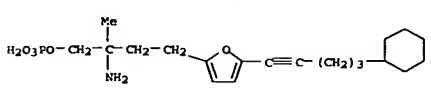
RN 566936-68-3 HCAPLUS

CN 2-Furanbutanol, β-amino-β-methyl-5-(5-phenylpentyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566936-69-4 HCAPLUS

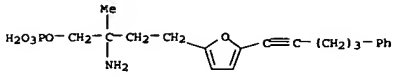
CN 2-Furanbutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



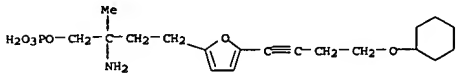
RN 566936-70-7 HCAPLUS

CN 2-Furanbutanol, β-amino-β-methyl-5-(5-phenyl-1-pentynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

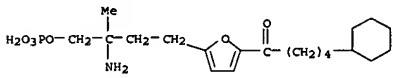
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



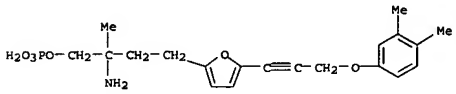
RN 566936-71-8 HCAPLUS
CN 2-Furanbutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



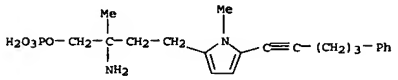
RN 566936-72-9 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-furanyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



RN 566936-73-0 HCAPLUS
CN 2-Furanbutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

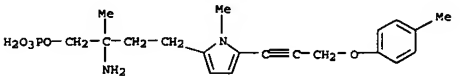


RN 566936-74-1 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-β,1-dimethyl-5-(5-phenyl-1-pentynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

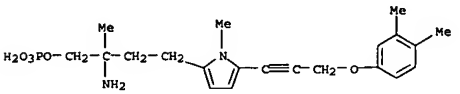


RN 566936-75-2 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-β,1-dimethyl-5-[3-(4-

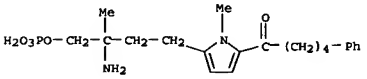
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
methylphenoxy)-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



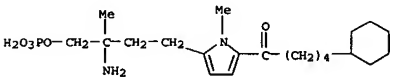
RN 566936-77-4 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β,1-dimethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566936-78-5 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)

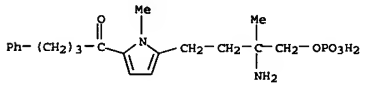


RN 566936-79-6 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-5-cyclohexyl- (9CI) (CA INDEX NAME)

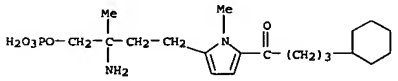


RN 566936-80-9 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-4-phenyl- (9CI) (CA INDEX NAME)

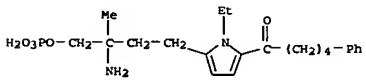
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



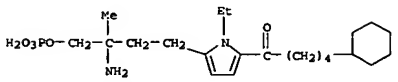
RN 566936-81-0 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-methyl-1H-pyrrol-2-yl]-4-cyclohexyl- (9CI) (CA INDEX NAME)



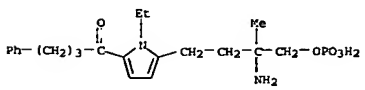
RN 566936-82-1 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-5-phenyl- (9CI) (CA INDEX NAME)



RN 566936-83-2 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-5-cyclohexyl- (9CI) (CA INDEX NAME)

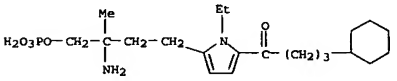


RN 566936-84-3 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-4-phenyl- (9CI) (CA INDEX NAME)

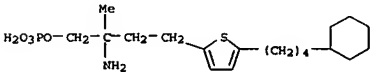


RN 566936-85-4 HCAPLUS

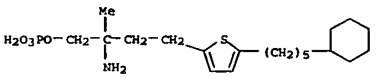
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-1-ethyl-1H-pyrrol-2-yl]-4-cyclohexyl- (9CI) (CA INDEX NAME)



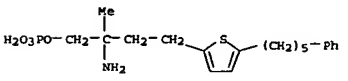
RN 566937-18-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(4-cyclohexylbutyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



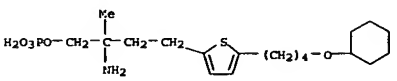
RN 566937-19-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexylpentyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-20-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(5-phenylpentyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

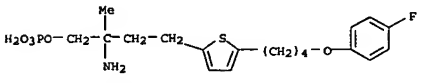


RN 566937-21-1 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(cyclohexyloxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

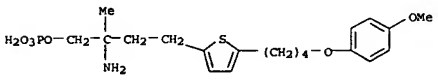


Searched by: Mary Hale 571-272-2507 REM 1D86

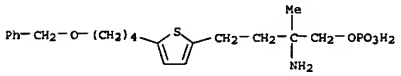
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 566937-22-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-fluorophenoxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



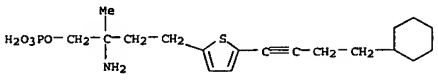
RN 566937-23-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-methoxyphenoxy)butyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



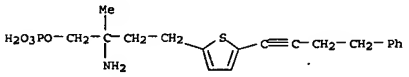
RN 566937-24-4 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(phenylmethoxy)butyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-25-5 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(4-cyclohexyl-1-butynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

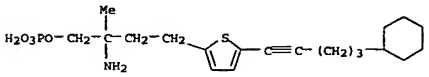


RN 566937-26-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(4-phenyl-1-butynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

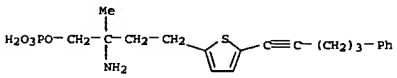


L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

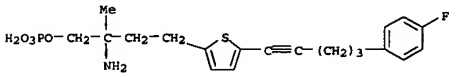
RN 566937-27-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



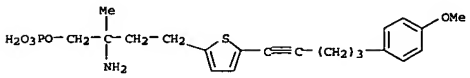
RN 566937-28-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-(5-phenyl-1-pentynyl)-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-29-9 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[5-(4-fluorophenyl)-1-pentynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

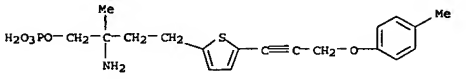


RN 566937-30-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[5-(4-methoxyphenyl)-1-pentynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

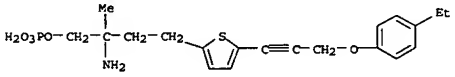


RN 566937-31-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-(4-methylphenoxy)-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

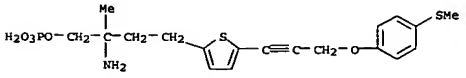
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



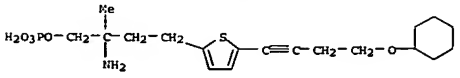
RN 566937-32-4 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(4-ethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



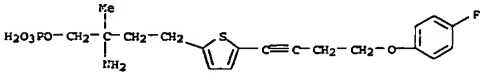
RN 566937-33-5 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-[4-(methylthio)phenoxy]-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-34-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

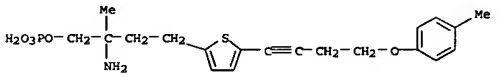


RN 566937-35-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[4-(4-fluorophenoxy)-1-butynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

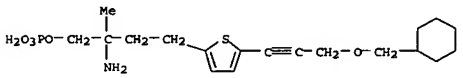


RN 566937-36-8 HCAPLUS

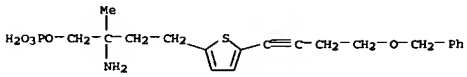
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(4-methylphenoxy)-1-butynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



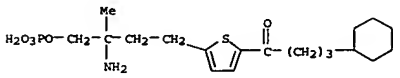
RN 566937-37-9 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(cyclohexylmethoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



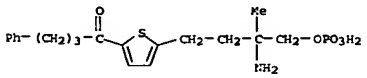
RN 566937-38-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[4-(phenylmethoxy)-1-butynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-39-1 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-4-cyclohexyl- (9CI) (CA INDEX NAME)

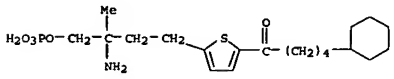


RN 566937-40-4 HCAPLUS
CN 1-Butanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-4-phenyl- (9CI) (CA INDEX NAME)

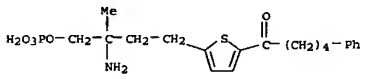


Searched by: Mary Hale 571-272-2507 REM 1D86

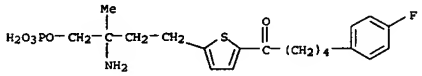
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RN 566937-41-5 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)



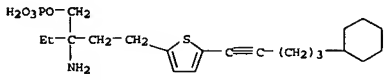
RN 566937-42-6 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-phenyl- (9CI) (CA INDEX NAME)



RN 566937-43-7 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-5-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

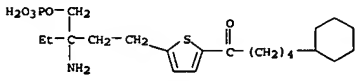


RN 566937-44-8 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-(5-cyclohexyl-1-pentynyl)-β-ethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

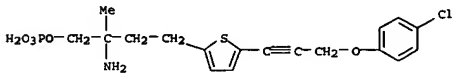


RN 566937-45-9 HCAPLUS
CN 1-Pentanone, 1-[5-[3-amino-3-ethyl-4-(phosphonooxy)butyl]-2-thienyl]-5-cyclohexyl- (9CI) (CA INDEX NAME)

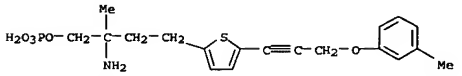
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



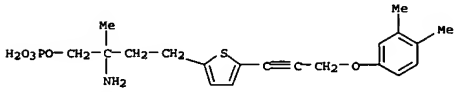
RN 566937-46-0 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(4-chlorophenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



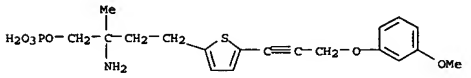
RN 566937-47-1 HCAPLUS
CN 2-Thiophenebutanol, β-amino-β-methyl-5-[3-(3-methylphenoxy)-1-propynyl]-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-48-2 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,4-dimethylphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

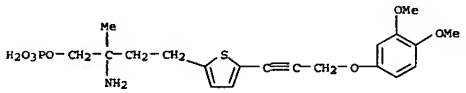


RN 566937-49-3 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3-methoxyphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)

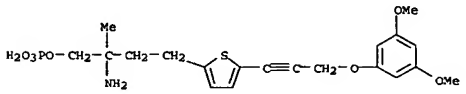


RN 566937-50-6 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,4-dimethoxyphenoxy)-1-propynyl]-

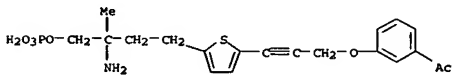
L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



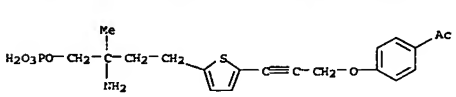
RN 566937-51-7 HCAPLUS
CN 2-Thiophenebutanol, β-amino-5-[3-(3,5-dimethoxyphenoxy)-1-propynyl]-β-methyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



RN 566937-52-8 HCAPLUS
CN Ethanone, 1-[3-[[3-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-2-propynyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



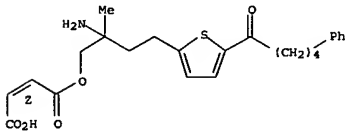
RN 566937-53-9 HCAPLUS
CN Ethanone, 1-[4-[[3-[5-[3-amino-3-methyl-4-(phosphonooxy)butyl]-2-thienyl]-2-propynyl]oxy]phenyl]- (9CI) (CA INDEX NAME)



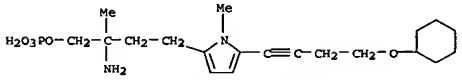
RN 566938-97-4 HCAPLUS
CN 2-Butenedioic acid (2Z)-, mono[2-amino-2-methyl-4-[5-(1-oxo-5-phenylpentyl)-2-thienyl]butyl] ester (9CI) (CA INDEX NAME)

Double bond geometry as shown.

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

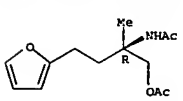


RN 568578-31-4 HCAPLUS
CN 1H-Pyrrole-2-butanol, β-amino-5-[4-(cyclohexyloxy)-1-butynyl]-β,1-dimethyl-, dihydrogen phosphate (ester) (9CI) (CA INDEX NAME)



IT 566937-93-7P 566938-15-6P 566938-19-0P
566938-33-8P 566938-37-2P 566938-48-5P
566938-63-4P 566938-65-6P 566938-66-7P
566938-68-9P 566938-69-0P 566938-70-3P
566938-71-4P 566938-72-5P 566938-74-7P
566938-79-2P 566938-80-5P 566938-88-3P
566938-92-9P 566938-93-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino(furanyl or pyrrolyl)butanol or -pentylphosphonic acid
derivs. as immunosuppressants for prevention/treatment of autoimmune diseases, chronic articular rheumatism, or organ transplant rejections)
RN 566937-93-7 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(2-furanyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

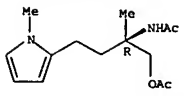
Absolute stereochemistry.



RN 566938-15-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(1-methyl-1H-pyrrol-2-yl)propyl]- (9CI) (CA INDEX NAME)

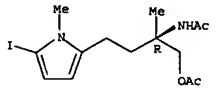
Absolute stereochemistry.

Searched by: Mary Hale 571-272-2507 REM 1D86



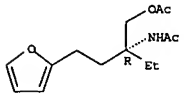
RN 566938-19-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-iodo-1-methyl-1H-pyrrol-2-yl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



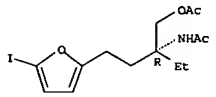
RN 566938-33-8 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-ethyl-3-(2-furanyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



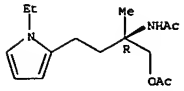
RN 566938-37-2 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-ethyl-3-(5-iodo-2-furanyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



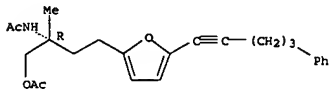
RN 566938-48-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(1-ethyl-1H-pyrrol-2-yl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



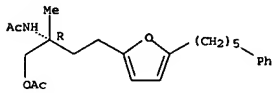
RN 566938-63-4 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenyl-1-pentynyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



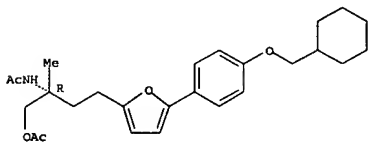
RN 566938-65-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(5-(5-phenylpentyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 566938-66-7 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[4-(cyclohexylmethoxy)phenyl]-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

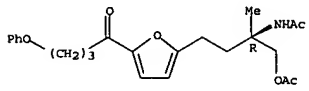
Absolute stereochemistry.



RN 566938-68-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(1-oxo-4-

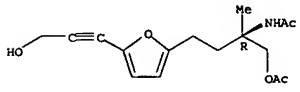
phenoxybutyl)-2-furanyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



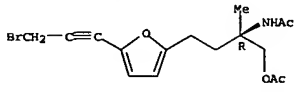
RN 566938-69-0 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-hydroxy-1-propynyl)-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



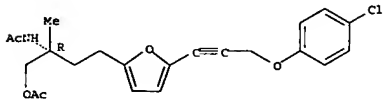
RN 566938-70-3 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-bromo-1-propynyl)-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



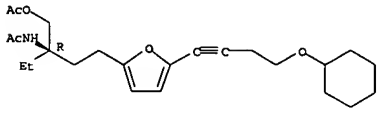
RN 566938-71-4 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[3-(4-chlorophenoxy)-1-propynyl]-2-furanyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



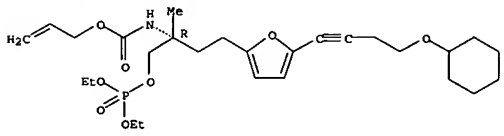
RN 566938-72-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-[4-(cyclohexyloxy)-1-butynyl]-2-furanyl]-1-ethylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



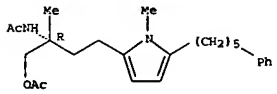
RN 566938-74-7 HCAPLUS
CN 5,7-Dioxa-2-aza-6-phosphanonanoic acid, 3-[2-[5-[4-(cyclohexyloxy)-1-butynyl]-2-furanyl]ethyl]-6-ethoxy-3-methyl-, 2-propenyl ester, 6-oxide, (3R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 566938-79-2 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[1-methyl-5-(5-phenylpentyl)-1H-pyrrol-2-yl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

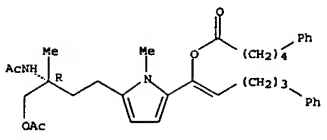


RN 566938-80-5 HCAPLUS
CN Benzenepentanoic acid, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-methyl-1H-pyrrol-2-yl]-5-phenyl-1-pentenyl ester (9CI) (CA
INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

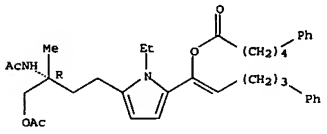
Searched by: Mary Hale 571-272-2507 REM 1D86

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



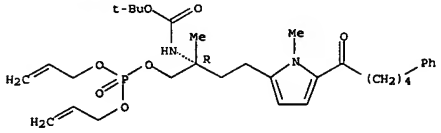
RN 566938-88-3 HCAPLUS
CN Benzenepentanoic acid, 1-[5-[(3R)-3-(acetylamino)-4-(acetyloxy)-3-methylbutyl]-1-ethyl-1H-pyrrol-2-yl]-5-phenyl-1-pentenyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.



RN 566938-92-9 HCAPLUS
CN 5,7-Dioxa-2-aza-6-phosphadec-9-enoic acid, 3-methyl-3-[2-[1-methyl-5-(1-oxo-5-phenylpentyl)-1H-pyrrol-2-yl]ethyl]-6-(2-propenyloxy)-, 1,1-dimethylethyl ester, 6-oxide, (3R)- (9CI) (CA INDEX NAME)

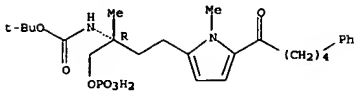
Absolute stereochemistry.



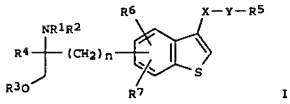
RN 566938-93-0 HCAPLUS
CN Carbamic acid, [(1R)-1-methyl-3-[1-methyl-5-(1-oxo-5-phenylpentyl)-1H-pyrrol-2-yl]-1-[(phosphonooxy)methyl]propyl]-, C-(1,1-dimethylethyl) ester
(9CI) (CA INDEX NAME)

Absolute stereochemistry.

L8 ANSWER 11 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



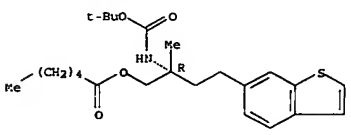
L8 ANSWER 12 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:827455 Document No. 137:337773 Immunosuppressant benzothiophene derivatives. **Nishi, Takahide**; Shiroshima, Takaaki; Shimozato, Ryuichi; Nara, Futoshi (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002316985 A2 20021031, 67 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-122867 20010420.
GI



I

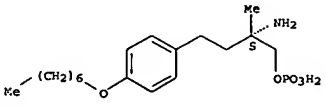
AB The derivs. I [R1, R2 = H, amino-protecting group; R3 = H, hydroxy-protecting group; R4 = lower alkyl; n = 1-6; X = CH2CH2, CH:CH, C.tplbond.C, DCH2 (D = CO, CHOH, O, S, N), aryl which may be substituted with ≥1 selected from (a) (definition given); Y = direct bond, C1-10 alkylene which may be substituted with ≥1 selected from (a) and (b) (definition given) and/or contain O or S in the chain; R5 = H, cycloalkyl, aryl, heterocyclyl, which may be substituted with ≥1 selected from (a) and (b); R6, R7 = H, any group selected from (a); if R5 = H, then Y = any group other than direct bond, n-C1-10 alkylene], their pharmacol. acceptable salts, their esters, and their derivs. show low cytotoxicity and are useful as immunosuppressants. Preparation of (2R)-amino-4-[3-(4-cyclohexyloxybut-1-ynyl)benzo[b]thiophen-6-yl]-2-methylbutan-1-ol was given. I showed high suppressive activity on host vs. graft reaction in rats.
IT **391678-30-1P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of immunosuppressant benzothiophene derivs. with low toxicity)
RN 391678-30-1 HCAPLUS
CN Hexanoic acid, (2R)-4-benzo[b]thien-6-yl-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-methylbutyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



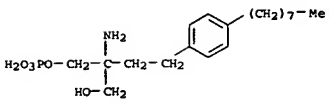
L8 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:478970 Document No. 138:49606 The **immune** modulator FTY720 targets sphingosine 1-phosphate receptors. Brinkmann, Volker; Davis, Michael D.; Heise, Christopher E.; Albert, Rainer; Cottens, Sylvain; Hof, Robert; Bruns, Christian; Prieschl, Eva; Baumruker, Thomas; Hiestand, Peter; Foster, Carolyn A.; Zollinger, Markus; Lynch, Kevin R. (Department of Transplantation, Novartis Pharma AG, Basel, CH-4002, Switz.). Journal of Biological Chemistry, 277(24), 21453-21457 (English) 2002. CODEN: JBCHA3. ISSN: 0021-9258. Publisher: American Society for Biochemistry and Molecular Biology.
AB Immunosuppressant drugs such as cyclosporin have allowed widespread organ transplantation, but their utility remains limited by toxicities, and they
are ineffective in chronic management of autoimmune diseases such as multiple sclerosis. In contrast, the **immune** modulating drug FTY720 is efficacious in a variety of transplant and autoimmune models without inducing a generalized immunosuppressed state and is effective in human kidney transplantation. FTY720 elicits a lymphopenia resulting from
a reversible redistribution of lymphocytes from circulation to secondary lymphoid tissues by unknown mechanisms. Using FTY720 and several analogs,
we show now that FTY720 is phosphorylated by sphingosine kinase; the phosphorylated compound is a potent agonist at four sphingosine 1-phosphate
receptors and represents the therapeutic principle in a rodent model of multiple sclerosis. Our results suggest that FTY720, after phosphorylation, acts through sphingosine 1-phosphate signaling pathways to modulate chemotactic responses and lymphocyte trafficking.
IT **479201-17-7**
RL: ADV (Adverse effect, including toxicity); EMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunomodulators FTY720 and analogs target sphingosine 1-phosphate receptors)
RN 479201-17-7 HCAPLUS
CN Benzenebutanol, β-amino-4-(heptyloxy)-β-methyl-, dihydrogen phosphate (ester), (βS)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



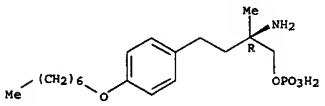
IT **402615-91-2 479201-16-6**
RL: ADV (Adverse effect, including toxicity); EMA (Drug mechanism of action); PAC (Pharmacological activity); PKT (Pharmacokinetics); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(immunomodulators FTY720 and analogs target sphingosine 1-phosphate receptors)
RN 402615-91-2 HCAPLUS
CN 1,3-Propanediol, 2-amino-2-[2-(4-octylphenyl)ethyl]-, mono(dihydrogen phosphate) (ester) (9CI) (CA INDEX NAME)

L8 ANSWER 13 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 479201-16-6 HCAPLUS
CN Benzenebutanol, β-amino-4-(heptyloxy)-β-methyl-, dihydrogen phosphate (ester), (βR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

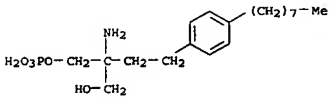


L8 ANSWER 14 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:301209 Document No. 137:241872 Alteration of lymphocyte trafficking by sphingosine-1-phosphate receptor agonists. Mandala, Suzanne; Hajdu, Richard; Bergstrom, James; Quackenbush, Elizabeth; Xie, Jenny; Milligan, James; Thornton, Rosemary; Shei, Gan-Ju; Card, Deborah; Keohane, Carolann; Rosenbach, Mark; Hale, Jeffrey; Lynch, Christopher L.; Rupprecht, Kathleen; Parsons, William; Rosen, Hugh (Departments of Immunology and Rheumatology, Merck Res. Laboratories, Rahway, NJ, 07065, USA). Science (Washington, DC, United States), 296(5566), 346-349 (English) 2002. CODEN: SCIEAS. ISSN: 0036-8075. Publisher: American Association for the Advancement of Science.

AB Blood lymphocyte nos., essential for the development of efficient **immune responses**, are maintained by recirculation through secondary lymphoid organs. We show that lymphocyte trafficking is altered by the lysophospholipid sphingosine-1-phosphate (S1P) and by a phosphoryl metabolite of the immunosuppressive agent FTY720. Both species were high-affinity agonists of at least four of the five S1P receptors. These agonists produce lymphopenia in blood and thoracic duct lymph by sequestration of lymphocytes in lymph nodes, but not spleen. S1P receptor agonists induced emptying of lymphoid sinuses by retention of lymphocytes on the abluminal side of sinus-lining endothelium and inhibition of egress into lymph. Inhibition of lymphocyte recirculation by activation of S1P receptors may result in therapeutically useful immunosuppression.

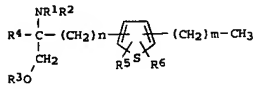
IT **402615-91-2**
RL: PAC (Pharmacological activity); BIOL (Biological study)
(alteration of lymphocyte trafficking by sphingosine-1-phosphate receptor agonists)

RN 402615-91-2 HCAPLUS
CN 1,3-Propanediol, 2-amino-2-[2-(4-octylphenyl)ethyl]-, mono(dihydrogen phosphate) (ester) (9CI) (CA INDEX NAME)



L8 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:129129 Document No. 136:183696 Preparation of amino alcohols and their use as immunosuppressants. **Nishi, Takehide**; Takemoto, Toshiyasu; Nara, Futoshi; Shimozato, Ryuichi (Sankyo Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002053575 A2 20020219, 45 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-240721 20000809.

GI

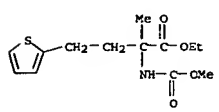


I

AB Title compds. I (R1-R3 = H, protecting group; R4 = lower alkyl; X = ethylene, vinylene, ethynylene, COCH2, OCH2, etc.; R5, R6 = H, halo, lower alkyl, OH, cyano, NO2, etc.; m = 1-9; n = 1-6), their pharmacol. acceptable salts, esters, and derivs. are prepared Thus, 4-[2-(5-bromothien-2-yl)]ethyl-4-methyloxazolidin-2-one was treated with octyne to give 82% 4-{2-[5-(oct-1-ynyl)thiophen-2-yl]}ethyl-4-methyloxazolidin-2-one, which was refluxed with 5N aqueous NaOH in MeOH and THF to afford 83% 2-amino-2-methyl-4-[5-(oct-1-ynyl)thiophen-2-yl]butan-1-ol.

IT **391678-01-6P**, Ethyl 2-methoxycarbonylamino-2-methyl-4-(2-thienyl)butanoate
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of amino alcs. as immunosuppressants)

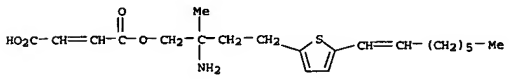
RN 391678-01-6 HCAPLUS
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-, ethyl ester (9CI) (CA INDEX NAME)



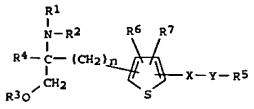
IT **398454-01-8P**, 2-Amino-2-methyl-4-[5-(oct-1-enyl)thiophen-2-yl]butan-1-ol maleate
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of amino alcs. as immunosuppressants)

RN 398454-01-8 HCAPLUS
CN 2-Butenedioic acid, mono[2-amino-2-methyl-4-[5-(1-octenyl)-2-thienyl]butyl] ester (9CI) (CA INDEX NAME)

L8 ANSWER 15 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



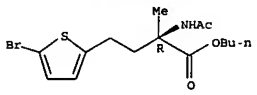
L8 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:72083 Document No. 136:134664 Preparation of aminoalkanol moiety-containing thiophene derivatives as immunosuppressants.
Nishi, Takahide; Takemoto, Toshiyasu; Shimozato, Takaichi; Nara, Futoshi (Sankyo Company, Ltd., Japan). PCT Int. Appl. WO 2002006268 A1 20020124, 373 pp. DESIGNATED STATES: W: AU, BR, CA, CN, CO, CZ, HU, ID, IL, IN, KR, MX, NO, NZ, PL, RU, SG, SK, US, ZA; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese).
CODEN: PIXXD2. APPLICATION: WO 2001-JP5988 20010710. PRIORITY: JP 2000-212246 20000713; JP 2000-241744 20000809; JP 2000-283218 20000919.
GI



I

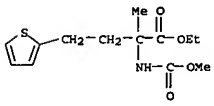
AB The title compds. I [R1 and R2 are each hydrogen or an amino-protecting group; R3 is hydrogen or a hydroxyl-protecting group; R4 is lower alkyl; n is an integer of 1 to 6; X is ethylene, etc.; Y is (un)substituted C1-10 alkylene, etc. ; R5 is aryl, etc.; and R6 and R7 are each hydrogen, alkyl, etc.; a proviso is given] are prepared Processes for preparing intermediates for I are claimed. (2R)-Amino-2-methyl-4-[5-[3-(4-methylphenoxy)propynyl]thiophen-2-yl]butan-1-ol maleic acid salt showed oral ID50 of 0.04 mg/kg against adjuvant arthritis in rats.
IT **391678-50-5**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of aminoalkanol moiety-containing thiophene derivs. as immunosuppressants)
RN 391678-50-5 HCAPLUS
CN 2-Thiophenebutanoic acid, α-(acetylamino)-5-bromo-α-methyl-, butyl ester, (αR)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

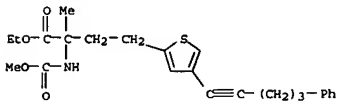


IT **391678-01-6P 391678-13-0P 391678-18-5P**
391678-19-6P 391678-20-9P 391678-21-0P
391678-22-1P 391678-27-6P 391678-30-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of aminoalkanol moiety-containing thiophene derivs. as

L8 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
immunosuppressants)
RN 391678-01-6 HCAPLUS
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-, ethyl ester (9CI) (CA INDEX NAME)

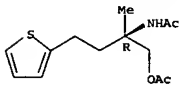


RN 391678-13-0 HCAPLUS
CN 2-Thiophenebutanoic acid, α-[(methoxycarbonyl)amino]-α-methyl-4-(5-phenyl-1-pentynyl)-, ethyl ester (9CI) (CA INDEX NAME)



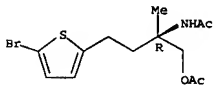
RN 391678-18-5 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-(2-thienyl)propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 391678-19-6 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-(5-bromo-2-thienyl)-1-methylpropyl]- (9CI) (CA INDEX NAME)

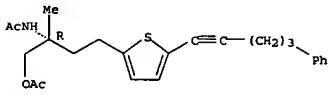
Absolute stereochemistry.



RN 391678-20-9 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenyl-1-

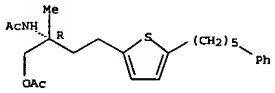
L8 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
pentynyl)-2-thienyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



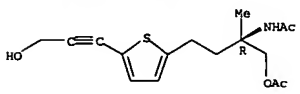
RN 391678-21-0 HCAPLUS
CN Acetamide,
N-[(1R)-1-[(acetyloxy)methyl]-1-methyl-3-[5-(5-phenylpentyl)-2-thienyl]propyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



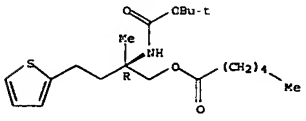
RN 391678-22-1 HCAPLUS
CN Acetamide, N-[(1R)-1-[(acetyloxy)methyl]-3-[5-(3-hydroxy-1-propynyl)-2-thienyl]-1-methylpropyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 391678-27-6 HCAPLUS
CN Hexanoic acid,
(2R)-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-methyl-4-(2-thienyl)butyl ester (9CI) (CA INDEX NAME)

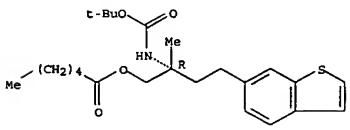
Absolute stereochemistry.



RN 391678-30-1 HCAPLUS

L8 ANSWER 16 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
CN Hexanoic acid, (2R)-4-benzo[b]thien-6-yl-2-[[(1,1-dimethylethoxy)carbonyl]amino]-2-methylbutyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.

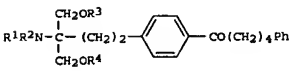


Searched by: Mary Hale 571-272-2507 REM 1D86

L8 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

1998:682349 Document No. 129:302447 Preparation of 2-aminopropane-1,3-diol compounds as immunosuppressants. Adachi, Kunitomo; Aoki, Yoshiyuki; Hanano, Tokushi; Teshima, Koji; Hoshino, Yukio; Fujita, Tetsuro (Yoshitomi Pharmaceutical Industries, Ltd., Japan). PCT Int. Appl. WO 9845249 A1 19981015, 87 pp. DESIGNATED STATES: W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1998-JP1571 19980403. PRIORITY: JP 1997-86255 19970404.

GI



I

AB Claimed are compds. represented by general formula (I; R1 - R4 = H, acyl), pharmaceutically acceptable acid addition salts thereof, or hydrates of the same; drugs containing these compds.; medicinal compns. containing these compds. together with pharmaceutically acceptable carriers; and 2-amino-2-(2-(4-(1-hydroxy-5-phenylpentyl)phenyl)ethyl)propane-1, 3-diol or 2-amino-2-(2-(4-formylphenyl)ethyl)-propane-1,3-diol optionally protected at the amino and/or hydroxy group or salts thereof, each useful as an intermediate in synthesizing the above compds. Because of having little toxicity, high safety and excellent immunosuppressive effects, these compds. are useful as preventives or depressants for rejection reactions in organ or bone marrow transplant and preventives or remedies for various autoimmune diseases, various allergic diseases, and host-vs.-graft diseases. Thus, Grignard addition of 2-acetamido-1,3-bis(tert-butyldimethylsilyloxy)-2-[2-(4-formylphenyl)ethyl]propane with 1-bromo-4-phenylbutane and Mg metal in THF gave 2-acetamido-1,3-bis(tert-butyldimethylsilyloxy)-2-[2-[4-(1-hydroxy-5-phenylpentyl)phenyl]ethyl]propane which was oxidized by DMSO and oxalyl chloride at -78° in the presence of Et3N in CH2Cl2 to give I (R1 = AC, R2 = H, R3 = R4 = tert-butyldimethylsilyl). Deprotection of the latter compound by treatment with Bu4NF in THF at room temperature for 1 h and then with LiOH in H2O/THF/MeOH under reflux gave I (R1 - R4 = H). I in vitro showed IC50 of from 1 to .apprx.50 nM for inhibiting the interleukin 2 (IL2)-induced proliferation of IL-2-dependent T cells (CTLL-2) and at 0.1-10 mg/kg in vivo inhibited rat adjuvant arthritis.

IT **5463-92-3P 162359-95-7P 214420-53-8P 214420-55-0P 214420-56-1P 214420-57-2P 214420-61-8P 214420-62-9P 214420-64-1P**

L8 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

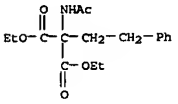
214420-65-2P 214420-66-3P 214420-67-4P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 2-aminopropane-1,3-diol compds. as immunosuppressants and allergy inhibitors)

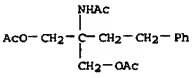
RN 5463-92-3 HCAPLUS

CN Propanedioic acid, (acetylamino)(2-phenylethyl)-, diethyl ester (9CI) (CA INDEX NAME)



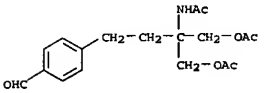
RN 162359-95-7 HCAPLUS

CN Acetamide, N-[1,1-bis[(acetyloxy)methyl]-3-phenylpropyl]- (9CI) (CA INDEX NAME)



RN 214420-53-8 HCAPLUS

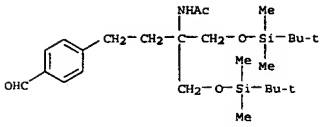
CN Acetamide, N-[1,1-bis[(acetyloxy)methyl]-3-(4-formylphenyl)propyl]- (9CI) (CA INDEX NAME)



RN 214420-55-0 HCAPLUS

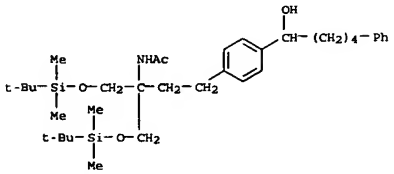
CN Acetamide, N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-(4-formylphenyl)propyl]- (9CI) (CA INDEX NAME)

L8 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



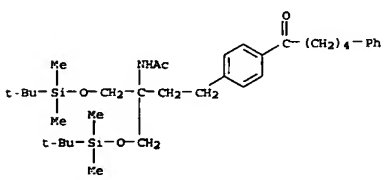
RN 214420-56-1 HCAPLUS

CN Acetamide, N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-hydroxy-5-phenylpentyl)phenyl]propyl]- (9CI) (CA INDEX NAME)



RN 214420-57-2 HCAPLUS

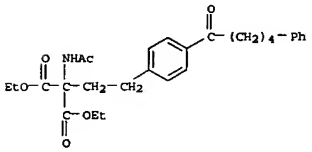
CN Acetamide, N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-oxo-5-phenylpentyl)phenyl]propyl]- (9CI) (CA INDEX NAME)



RN 214420-61-8 HCAPLUS

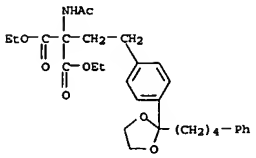
CN Propanedioic acid, (acetylamino)[2-[4-(1-oxo-5-phenylpentyl)phenyl]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

L8 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



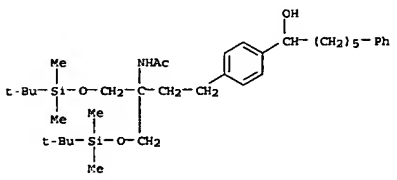
RN 214420-62-9 HCAPLUS

CN Propanedioic acid, (acetylamino)[2-[4-[2-(4-phenylbutyl)-1,3-dioxolan-2-yl]phenyl]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



RN 214420-64-1 HCAPLUS

CN Acetamide, N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-hydroxy-6-phenylhexyl)phenyl]propyl]- (9CI) (CA INDEX NAME)

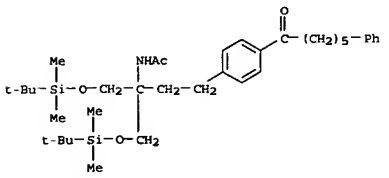


RN 214420-65-2 HCAPLUS

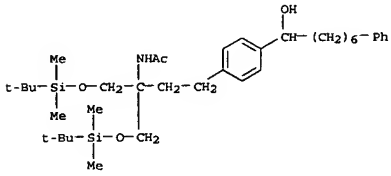
CN Acetamide, N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-oxo-6-phenylhexyl)phenyl]propyl]- (9CI) (CA INDEX NAME)

Searched by: Mary Hale 571-272-2507 REM 1D86

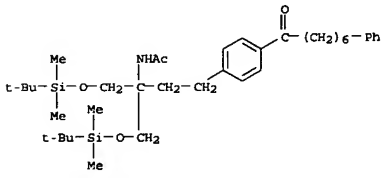
L8 ANSWER 17 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 214420-66-3 HCAPLUS
CN Acetamide,
N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-hydroxy-7-phenylheptyl)phenyl]propyl]- (9CI) (CA INDEX NAME)

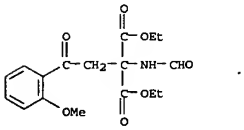


RN 214420-67-4 HCAPLUS
CN Acetamide,
N-[1,1-bis[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-3-[4-(1-oxo-7-phenylheptyl)phenyl]propyl]- (9CI) (CA INDEX NAME)

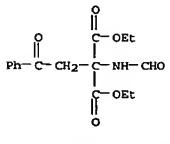


L8 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

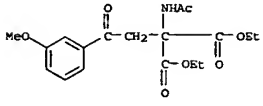
RN 168154-45-8 HCAPLUS
CN Propanedioic acid, (formylamino)[2-(2-methoxyphenyl)-2-oxoethyl]-, diethyl
ester (9CI) (CA INDEX NAME)



RN 168154-46-9 HCAPLUS
CN Propanedioic acid, (formylamino)(2-oxo-2-phenylethyl)-, diethyl ester (9CI) (CA INDEX NAME)

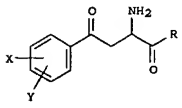


RN 168154-47-0 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(3-methoxyphenyl)-2-oxoethyl]-, diethyl
ester (9CI) (CA INDEX NAME)



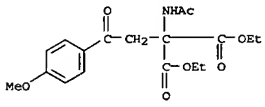
RN 168154-48-1 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(2-fluorophenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)

L8 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN
1995:812770 Document No. 123:228895 Preparation of 2-amino-4-phenyl-4-oxobutyric acid derivatives with kynureninase and/or kynurenine-3-hydroxylase inhibiting activity.. Varasi, Mario; Giordani, Antonio; Speciale, Carmela; Cini, Massimo; Bianchetti, Alberto (Pharmacia S.p.A., Italy). PCT Int. Appl. WO 9503271 A1 19950202, 79 pp. DESIGNATED STATES:
W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KP, KR, KZ, LK, LV, MG, MN, MW, NO, NZ, PL, RO, RU, SI, SK, UA, UZ, VN; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2.
APPLICATION: WO 1994-EP2280 19940712. PRIORITY: IT 1993-MI1649 19930723.
GI

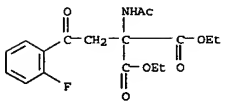


I

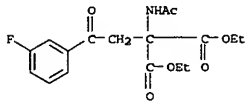
AB Title compds. (I; X, Y = H, halo, CF3, OH, alkyl, PhCH2, aryl, OR', SR', SOR', SO2R'; R' = alkyl, PhCH2; R = OH, amino, hydroxylamino, OR', NHR', NR'R', NHOR'), were prepared for prevention and/or treatment of neurodegenerative diseases. Thus, di-Et α-formamidomalonate was stirred 45 min in EtOH containing NaOEt at 45-50°; α-bromo-2'-methoxyacetophenone in EtOH was added and the mixture was stirred 24 h at room temperature to give Et 4-(2'-methoxyphenyl)-4-oxo-2-formylamino-2-ethoxycarbonylbutyrate. This was refluxed in a mixture of HOAc/aqueous HCl to
give 2-amino-4-(2'-methoxyphenyl)-4-oxobutyric acid (II) hydrochloride. II inhibited kynureninase by 96% at 100 μM; capsules and injections containing II were prepared
IT **73994-51-1P 168154-45-8P 168154-46-9P**
168154-47-0P 168154-48-1P 168154-49-2P
168154-50-5P 168154-51-6P 168154-52-7P
168154-53-8P 168154-54-9P 168154-55-0P
168154-56-1P 168154-98-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 2-amino-4-phenyl-4-oxobutyrates with kynureninase and/or
kynurenine-3-hydroxylase inhibiting activity)
RN 73994-51-1 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(4-methoxyphenyl)-2-oxoethyl]-, diethyl
ester (9CI) (CA INDEX NAME)



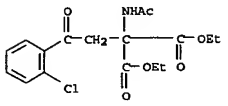
L8 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



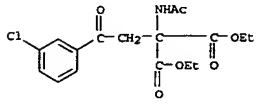
RN 168154-49-2 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(3-fluorophenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)



RN 168154-50-5 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(2-chlorophenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)



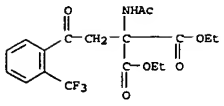
RN 168154-51-6 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(3-chlorophenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)



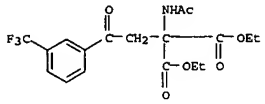
RN 168154-52-7 HCAPLUS
CN Propanedioic acid,
(acetylamino)[2-oxo-2-[2-(trifluoromethyl)phenyl]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

Searched by: Mary Hale 571-272-2507 REM 1D86

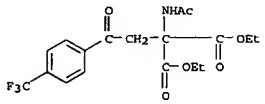
L8 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



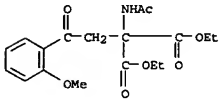
RN 168154-53-8 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-oxo-2-[3-(trifluoromethyl)phenyl]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)



RN 168154-54-9 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-oxo-2-[4-(trifluoromethyl)phenyl]ethyl]-, diethyl ester (9CI) (CA INDEX NAME)

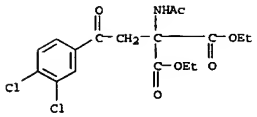


RN 168154-55-0 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(2-methoxyphenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)

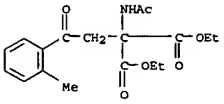


RN 168154-56-1 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(3,4-dichlorophenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)

L8 ANSWER 18 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



RN 168154-98-1 HCAPLUS
CN Propanedioic acid, (acetylamino)[2-(2-methylphenyl)-2-oxoethyl]-, diethyl ester (9CI) (CA INDEX NAME)



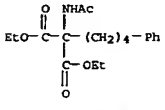
L8 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN

1993:626409 Document No. 119:226409 Synthesis and biological evaluation of cholecystokinin analogs in which the Asp-Phe-NH2 moiety has been replaced by a 3-amino-7-phenylheptanoic acid or a 3-amino-6-(phenyloxy)hexanoic acid. Amblard, Muriel; Rodriguez, Marc; Lignon, Marie Francoise; Galas, Marie Christine; Bernad, Nicole; Artis-Noel, Anne Marie; Hauad, Leticia; Laur, Jeanine; Califano, Jean Christophe; et al. (Fac. Pharm., Montpellier, 34060, Fr.). Journal of Medicinal Chemistry, 36(20), 3021-8 (English) 1993. CODEN: JMCMAR. ISSN: 0022-2623.

AB Boc-Tyr(SO3H)-Nle-Gly-Trp-Nle-R (I; Boc = Me3CO2C; R = Asp-OCH2CH2Ph) (II) (JMV180), an analog of the C-terminal octapeptide of cholecystokinin (CCK-8), shows interesting biol. activities behaving as an agonist at the high-affinity CCK binding sites and as an antagonist at the low-affinity CCK binding sites in rat pancreatic acini. Although major hydrolysis of the ester bond of II was not observed in in vitro studies, rapid cleavage of this ester bond during in vivo studies is possible. Analogs of II in which the ester bond would be replaced by a carba (CH2CH2) linkage were prepared to improve the stability. (R)-3-amino-7-phenylheptanoic acid (III) (β-homoAph) and (R)-3-amino-6-(phenyloxy)hexanoic acid (IV) (β-homoApp) were prepared to mimic the Asp-OCH2CH2Ph moiety. III and IV were introduced in the CCK-8 sequence to produce I (R = β-homoAph, β-homoApp). Both I (R = β-homoAph, β-homoApp) were able to recognize the CCK receptor on rat pancreatic acini (IC50 = 12 ± 8 nM and 13 ± 5 nM, resp.), on brain membranes (IC50 = 32 ± 2 nM and 57 U 5 nM, resp.), and on Jurkat T cells (IC50 = 75 ± 15 nM and 65 ± 21 nM, resp.). Like II, both I (R = β-homoAph, β-homoApp) produced maximal stimulation of amylase secretion (EC50 = 6 ± 2 nM and 4 ± 2 nM, resp.) with no decrease of the secretion at high concentration indicating that these compds. probably act as agonists at the high-affinity peripheral CCK-receptor and as antagonists at the low-affinity CCK-receptor. Replacing the tryptophan by a D-tryptophan in such analogs produced full CCK-receptor antagonists. All these analogs might be more suitable for in vivo studies than II.

IT **80887-21-4P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and selective saponification of)

RN 80887-21-4 HCAPLUS
CN Propanedioic acid, (acetylamino)(4-phenylbutyl)-, diethyl ester (9CI) (CA INDEX NAME)

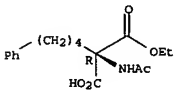


IT **150722-64-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and thermal decarboxylation of)

L8 ANSWER 19 OF 19 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

RN 150722-64-8 HCAPLUS
CN Propanedioic acid, (acetylamino)(4-phenylbutyl)-, monoethyl ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



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     (FILE 'CAOLD' ENTERED AT 13:33:10 ON 16 MAR 2005)
               DEL HIS Y

     FILE 'REGISTRY' ENTERED AT 13:33:42 ON 16 MAR 2005
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L5               0 SEARCH L4  SUB=L3 FUL
L6               0 S L4
L7               3 S L4 FUL

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L8              19 S L3 AND (IMMUNE(W)(SUPPRESS? OR RESPONSE) OR T CELLS OR IMMUNE

     FILE 'REGISTRY' ENTERED AT 13:42:30 ON 16 MAR 2005

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L4               STR
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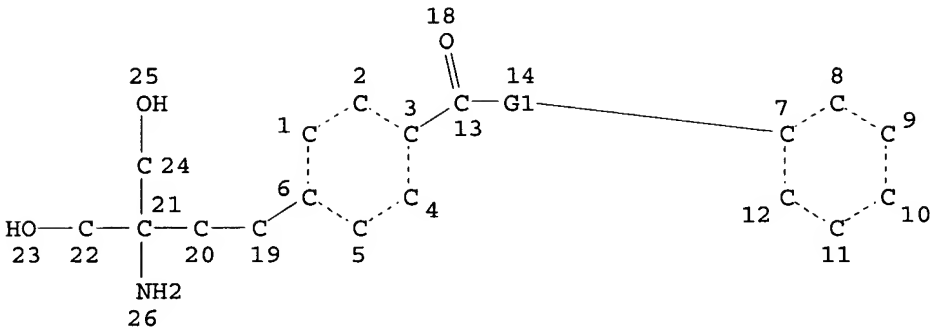
Searched by: Mary Hale 571-272-2507 REM 1D86



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DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 23

STEREO ATTRIBUTES: NONE
L7 3 SEA FILE=REGISTRY SSS FUL L4

100.0% PROCESSED 55 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

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FULL ESTIMATED COST	0.43	663.10

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	0.00	-18.25

FILE 'HCAPLUS' ENTERED AT 13:42:41 ON 16 MAR 2005
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FILE COVERS 1907 - 16 Mar 2005 VOL 142 ISS 12
FILE LAST UPDATED: 15 Mar 2005 (20050315/ED)

Searched by: Mary Hale 571-272-2507 REM 1D86

This file contains CAS Registry Numbers for easy and accurate substance identification.

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=> s l9 not l8
L10           6 L9 NOT L8

=> d 1-6 cbib abs hitstr
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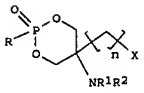
Searched by: Mary Hale 571-272-2507 REM 1D86

L10 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2005:141075 Document No. 142:219414 Preparation of phosphinane compounds with immunomodulating activity. Chino, Masao; Adachi, Kunitomo; Tanaka, Yoshihito; Sugahara, Kunio; Matsuyuki, Hirofumi; Tomatsu, Ayumi; Kiuchi, Masatoshi (Mitsubishi Pharma Corporation, Japan). PCT Int. Appl. WO 2005014603 A1 20050217, 104 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-JP11867 20040812. PRIORITY: US 2003-PV494543 20030812.

GI



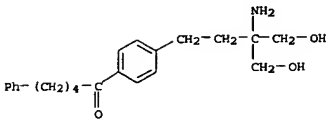
I

AB The invention is directed to a phosphinane compds., I (n = 1-20; R = organothio, organoalkoxy; R1, R2 = same or different H, (un)substituted C1-20 alkyl, C1-20 acyl; X = C1-20 alkyl, C1-20 alkoxy, arylene, etc.), having a unique immunomodulating activity, a process for a preparation thereof, a pharmaceutical composition containing the same, and a method of preventing or treating disorders or diseases mediated by T lymphocytes by administering the compound to a subject in need of treatment. Thus, protection of 2-amino-2-[2-(4-octylphenyl)ethyl]propane-1,3-diol hydrochloride with tert-Bu dicarbonate followed by treatment with tert-butyltetraisopropylphosphorodiamidite and deprotection with CF3CO2H gave title 5-amino-5-[2-(4-octylphenyl)ethyl]-2-oxo-2λ5-1,3,2-dioxaphosphinan-2-ol. Biol. activity of the products prepared is described.

IT **463952-39-8**
RL: RCT (Reactant); RACT (Reactant or reagent)
(preparation of dioxophosphinane oxide compds. with immunomodulating activity)

RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)

L10 ANSWER 1 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)



L10 ANSWER 2 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:834950 Document No. 141:337715 Pharmaceutical composition comprising an sphingosine 1-phosphate (S1P) receptor agonist. Omura, Tomoyuki; Pudipeddi, Madhusudhan; Ruegger, Colleen; Royce, Alan Edward; Sasaki, Masaki; Tamura, Tokuhiro (Novartis A.-G., Switz.; Mitsubishi Pharma Corporation). Brit. UK Pat. Appl. GB 2400318 A1 20041013, 26 pp. (English). CODEN: BAXXDU. APPLICATION: GB 2004-7819 20040406.

PRIORITY:
US 2003-PV461215 20030408.

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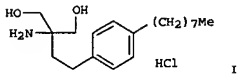
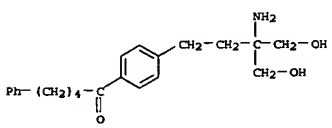


I

AB A solid pharmaceutical composition suitable for oral administration comprises (a) an S1P receptor agonist; and (b) a sugar alc., particularly mannitol. The agonist may especially be 2-amino-2-[2-(4-octylphenyl)ethyl]propane-1,3-diol or 2-amino-2-[2-(4-(1-oxo-5-phenylpentyl)phenyl]ethyl]propane-1,3-diol. The composition may be in the form of a tablet, capsule, pellet, powder or granules and is used in the treatment and prevention of transplant rejection, autoimmune diseases, inflammatory conditions and viral myocarditis and viral diseases caused thereby. Tablets were prepared containing FTY 720 (I) 1.4, mannitol 116.2, and Mg stearate 2.4 mg.

IT **463952-39-8**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(pharmaceutical composition comprising an sphingosine 1-phosphate receptor agonist)

RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)

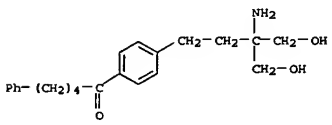


L10 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2004:290495 Document No. 140:309399 S1P receptor agonist compositions for treatment of demyelinating diseases. Foster, Carolyn Ann; Hiestand, Peter C.; Glue, Paul William (Novartis Ag, Switz.; Novartis Pharma GmbH). PCT Int. Appl. WO 2004028521 A2 20040408, 29 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SE, SG, SK, SY, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP10579 20030923. PRIORITY: US 2002-PV413172 20020924; US 2003-PV485132 20030707.

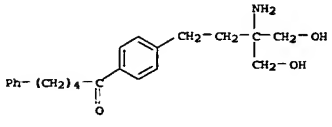
AB Disclosed are pharmaceutical combinations comprising at least one S1P receptor agonist, as well as a method for treating demyelinating diseases, e.g. multiple sclerosis or disorders associated therewith or Guillain-Barre syndrome, comprising co-administration, e.g. concomitantly or in sequence, of a therapeutically effective amount of a) an S1P receptor agonist, and b) at least one co-agent shown to have clin. activity against at least one symptom of a demyelinating disease.

IT **463952-39-8 463952-39-8D**, phosphates
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(S1P receptor agonist compns. for treatment of demyelinating diseases)

RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)



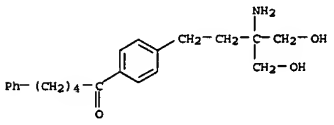
RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)



Searched by: Mary Hale 571-272-2507 REM 1D86

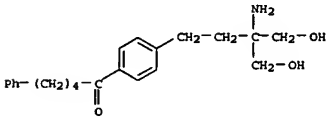
L10 ANSWER 3 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)

L10 ANSWER 4 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:931154 Document No. 140:714 Use of sphingosine-1-phosphate (S1P) receptor agonists for the treatment of cancer. Baumruker, Thomas; Brinkmann, Volker; La Montagne, Kenneth Richard; Lassota, Peter T.; Mechtcheriakova, Diana; Wood, Jeanette Marjorie (Novartis AG, Switz.; Novartis Pharma GMBH). PCT Int. Appl. WO 2003097028 A1 20031127, 49 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SE, SG, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VC, VN, YU, ZA, ZW; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2003-EP5125 20030515. PRIORITY: GB 2002-11261 20020516; US 2002-PV390411 20020620; GB 2002-17150 20020724; US 2003-PV449739 20030224.
AB A method is disclosed for treating solid tumors, e.g. tumor invasiveness, and particularly inhibiting or controlling deregulated angiogenesis, using a sphingosine-1-phosphate (S1P) receptor agonist, optionally in combination with a chemotherapeutic agent. The invention also discloses a combination of a S1P receptor agonist with a chemotherapeutic agent.
IT 627809-67-0
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sphingosine-1-phosphate receptor agonists for treatment of cancer, and use with other agents)
RN 627809-67-0 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl-, hydrochloride (9CI) (CA INDEX NAME)



● HCl

L10 ANSWER 5 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2003:97293 Document No. 138:131078 New uses for 2-amino-2-propane-1,3-diols.
Welsch, Carole; Movva, Rao (Novartis AG, Switz.; Novartis Pharma GmbH). PCT Int. Appl. WO 2003009836 A2 20030206, 16 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MW, MX, NO, NZ, OM, PH, PL, PT, RO, RU, SE, SG, SI, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VN, YU, ZA, ZW; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP8164 20020722. PRIORITY: GB 2001-17921 20010723.
AB Inhibition of yeast growth and identification of specific mol. targets and cellular pathways involved in the mechanism of antifungal action of 2-amino-2-propane-1,3-diols are described. 2-Amino-2-propane-1,3-diols act as modulators of protein expression through the ubiquitin pathway as a target for immunosuppression. They inhibit amino acid transport in T-cell, thus inhibiting T-cell replication or activation.
IT 463952-39-8
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(mechanism of antifungal action of aminopropanediols)
RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)



L10 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN
2002:754397 Document No. 137:263181 Preparation of 2-amino-propanol derivatives and their use in the treatment of diseases mediated by T lymphocytes. Albert, Rainer; Baumruker, Thomas; Brinkmann, Volker; Cottens, Sylvain; Papageorgiou, Christos; Prieschl-Strassmayr, Eva Erika; Hinterding, Klaus (Novartis Ag, Switz.; Novartis-Erfindungen Verwaltungsgesellschaft M.B.H.). PCT Int. Appl. WO 2002076995 A2 20021003, 30 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LT, LU, LV, MA, MD, MK, MN, MX, NO, NZ, OM, PH, PL, PT, RO, RU, SE, SG, SI, SK, TJ, TM, TN, TR, TT, UA, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2002-EP3389 20020326. PRIORITY: GB 2001-7506 20010326; GB 2001-7507 20010326; GB 2001-8346 20010403.
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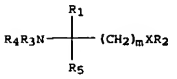

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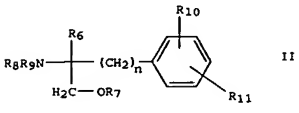
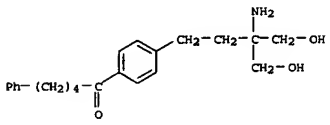


II

AB 2-Aminopropanol compds. [I; wherein n = 1, 2, 3; X = O or a direct bond; R1 = H, (C1-C6)alkyl (optionally substituted by OH, acyl, halogen, cycloalkyl, Ph or hydroxy-phenylene), (C2-C6)alkenyl, Ph (optionally substituted by OH); R2 = phosphoric acid derivative; R3, R4, independently = H, (C1-C4)alkyl (optionally substituted by halogen or acyl); R5 = (C13-C20)alkyl, (C13-C20)alkoxy, either of which may be optionally substituted by NO2, halogen, amino, OH, etc.] and [II; wherein n = 2, 3, 4; R6 = H, (C1-C6)alkyl (optionally substituted by OH, acyl, halogen, cycloalkyl, Ph or hydroxy-phenylene), (C2-C6)alkenyl, (C2-C6)alkynyl, Ph (optionally substituted by OH); R7 = H, (C1-C4)alkyl, acyl; R8, R9, independently = H, (C1-C4)alkyl (optionally substituted by halogen or acyl); R10 = H, (C1-C4)alkyl, (C1-C4)alkoxy; R11 = (C1-C20)alkanoyl substituted by cycloalkyl, optionally substituted cycloalkyl(C1-C14)alkoxy, optionally substituted phenyl(C1-C14)alkoxy] were prepared Thus, phosphoric acid mono-[2-amino-2-hydroxymethyl-4-[4-(5-phenylpentanoyl)phenyl]-butyl] ester was prepared in three steps from 1-[4-(3-amino-4-hydroxy-3-hydroxymethyl-butyl)phenyl]-5-phenyl-1-pentanone. The compds. are useful in preventing or treating disorders or diseases mediated by T lymphocytes.
IT 463952-39-8

L10 ANSWER 6 OF 6 HCAPLUS COPYRIGHT 2005 ACS on STN (Continued)
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 2-amino-propanol derivs. and use in treatment of diseases mediated by T lymphocytes)
RN 463952-39-8 HCAPLUS
CN 1-Pentanone, 1-[4-[3-amino-4-hydroxy-3-(hydroxymethyl)butyl]phenyl]-5-phenyl- (9CI) (CA INDEX NAME)



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